

TadhaerensSyt1	CAVLVFAVLVLCICCKCCCRKKPKNDKTKQGFKEKVSLSQSAQSLGVSLKER-----VQPEVEGVNKEME---LESKQIDPSEYV GELK
NvectensisSyt1	AAVIVIFCIYCCCCRKCCKGKKK-KDDK--RGGKERVDFRAVQ-IGASY QEK -----VQPSMDELNDYNE---DYHSDLSSGVK I GRIN
CapitellaSyt1var1	ALLLLLCCCFICICKRCCCKKKKDKDKK--KGLKGAVDLGSKVILGNSY KEK -----VQPDLEELVNME-DNEDAESTKSEVK L GKLQ
CapitellaSyt1var2	ALLLLLCCCFICICKRCCCKKKKDKDKK--KGLKGAVDLGSKVILGNSY KEK -----VQPDLEELVNME-DNEDAESTKSEVK L GKLQ
HrobustaSyt1a	ALLLILCCCGCLL-RMCWRRRK GKEGK --KGLKGAVDLKNVQLLGSSM KEK -----VQPDLESLEGNME-DNEGVENAKE EVKL GKLQ
HrobustaSyt1b	-----
HrobustaSyt1c	-----
HrobustaSyt1d	SVVLLLFMLMWCLCRCCTGKKKASSK---KGAKGYIDISQVQQ LGLSYKEK -----VQPDNLNELKENME-----ENEDAQHR GRLH
HrobustaSyt1e	IVIVVIFVIFCLKAKFCRRLKFGTEAS--TLGGKVDVDVAVKALGHSY KEK -----VQPELNDLKIDDCVANKKEKDDGGDV KL GRVH
LgiganteaSyt1var1	ALLFLVCCTYCMCKRCCCKKKK-KEGK--KGLKGAVDLKSVQLLG NAYKEK -----VQPDLDLQVNME-DNEDAESTKSEVK L GKLQ
LgiganteaSyt1var2	ALLFLVCCTYCMCKRCCCKKKK-KEGK--KGLKGAVDLKSVQLLG NAYKEK -----VQPDLDLQVNME-DNEDAESTKSEVK L GKLQ
CsavignyiSyt1	AGLILLCILYCCCKRCCCKKKKK QEK --KGLKNAIDLKSVQNMGDSY REK -----VQPDVDDLDTGAEKEGEE-----EK KL GKLQ
CintestinalisSyt1	AGLILLCVLYCCCKRCCCKKKKK QEK --KGLKNAIDLKSVKNMGDSY REK -----VQPDVDEVDIG-EKEDEE-----EK KL GKLQ
SpurpuratusSyt1var1	AGLILLCCCFICICKCCCKKKKK KEGK --KGLKGAVDLKSVQMLGNSY KEK -----IQPDVDDLNDGGD-EEGDTDSVKSE IKL GKLQ
SpurpuratusSyt1var2	● AGLILLCCCFICICKCCCKKKKK KEGK --KGLKGAVDLKSVQMLGNSY KEK -----PDVDDLNDGGD-EEGDTDSVKSE IKL GKLQ
BfloridaeSyt1a	IALLILLACIACICKKCVFRRKKKK GKGE --KGGKNVIDLKDVKMLGNSY KEK -----VQPDVEEIDAGLEGEGGDNESVQEKVN L GKLQ
BfloridaeSyt1bvar1	AALLLLCCMVCIKKCCCKKKKAK QKG --KGLKDSVDLQEVKMLGNQY KEK -----VQPDMDLLDSYGDEEDGAP KL GQLQ
BfloridaeSyt1bvar2	● AALLLLCCMVCIKKCCCKKKKAK QKG --KGLKDSVDLQEVKMLGNQY KEK DSSEDDLEDIEVEKPGIWNPNMEGGSGSDADGSDNEEDGKKKKKKKKRSFFGKLGNDPYVVSREK VQPDMDLLDSYGDEEDGAPKL GQLQ
BfloridaeSyt1bvar3	● AALLLLCCMVCIKKCCCKKKKAK QKG --KGLKDSVDLQ E -----SDSEDDLEDIEVEKPGIWNPNMEGGSGSDADGSDNEEDGKKKKKKKKRSFFGKLGNDPYVVSREK VQPDMDLLDSYGDEEDGAPKL GQLQ
IscapularisSyt1	VALLLLCICFCCLRRWC-R-RRRK DAK --KGLKGAVDLKG VQLLG NAYKEK -----VQPDMEELQDNMENNEGDSKSE EKL GRLQ
DpulexSyt1var1	VALVILLIAFCCIRRCR-RRRR KDAK --KGLKGAVDLKSVQLLG NAYKEK -----VQPDMEELTDNVEDIAVEGE-KKE EQKL GRLQ
DpulexSyt1var2	VALVILLIAFCCIRRCR-RRRR KDAK --KGLKGAVDLKSVQLLG NAYKEK -----VQPDMEELTDNVEDIAVEGE-KKE EQKL GRLQ
ApisumSyt1	VVLLAVGFVGFCIHRFF-RRRRT KDGK --KG-KGVVDLKAVQLLG SAYKEK -----IQPDMEELADNAEEIAEEGDS T KDEK L GRLQ
TcastaneumSyt1	ICAILLGICFCFCIRRCF-RRRR KDGK --KGMKG-VDLKSVQLLG SAYKEK -----VQPDMEELTENAE-PDEAE-KPEV QKL GKLQ
NvitripennisSyt1	VAIIVLGFCGFCIRRCF-RRRR KDGK --KGLKGAVDLKSVQLLG STYKDK -----VQPDMEELTDNAEE-PDEAESKQSE VKL GRLQ
AmelliferaSyt1	VSVVVLGICFCFCIRRCR-RRRR KDGK --KGLKGAVDLKSVQLLG STYKDK -----VQPDMEELTDNAEE-PDEAESKQSE VKL GRLQ
AgambiaeSyt1var1	VVLIILGICGFCIRRCF-RRRR KDGK --KGMKG-VDLKSVQLLG SAYKEK -----VQPDMEELTENAE-GDEGESKQSE QKL GRLQ
AgambiaeSyt1var2	● VVLIILGICGFCIRRCF-RRRR KDGK --KGMKG-VDLK S -----VQPDMEELTENAE-GDEGESKQSE QKL GRLQ
AgambiaeSyt1var3	VVLIILGICGFCIRRCF-RRRR KDGK --KGMKG-VDLKSVQLLG SAYKEK -----VQPDMEELTENAE-GDEGESKQSE QKL GRLQ
AgambiaeSyt1var4	VVLIILGICGFCIRRCF-RRRR KDGK --KGMKG-VDLKSVQLLG SAYKEK -----VQPDMEELTENAE-GDEGESKQSE QKL GRLQ
DmelanogasterSyt1var1	VFLVVFGIIFFCVRRFL-KRRRT KDGK ---GKKG- VD MKSVQLLG SAYKEK -----VQPDMEELTENAE--GDEEDKQSE QKL GRLN
DmelanogasterSyt1var2	● VFLVVFGIIFFCVRRFL-KRRRT KDGK ---GKKG- VD MKSVQLLG SAYKEK -----PDMEELTENAE--GDEEDKQSE QKL GRLN
DmelanogasterSyt1var3	VFLVVFGIIFFCVRRFL-KRRRT KDGK ---GKKG- VD MKSVQLLG SAYKEK -----VQPDMEELTENAE--GDEEDKQSE QKL GRLN
DsimulansSyt1	VFLVVFGIIFFCVRRFL-KRRRT KDGK ---GKKG- VD MKSVQLLG SAYKEK -----VQPDMEELTENAE--GDEEDKQSE QKL GRLN
DsechelliaSyt1	VFLVVFGIIFFCVRRFL-KRRRT KDGK ---GKKG- VD MKSVQLLG SAYKEK -----VQPDMEELTENAE--GDEEDKQSE QKL GRLN
DerectaSyt1	VFLVVFGIIFFCVRRFL-KRRRT KDGK ---GKKG- VD MKSVQLLG SAYKEK -----VQPDMEELTENAE--GDEEDKQSE QKL GRLN
DyakubaSyt1	VFLVVFGIIFFCVRRFL-KRRRT KDGK ---GKKG- VD MKSVQLLG SAYKEK -----VQPDMEELTENAE--GDEEDKQSE QKL GRLN
DananassaeSyt1	VFLVVFGIIFFCVRRFL-KRRRT KDGK ---GKKG- VD MKSVQLLG SAYKEK -----VQPDMEELTENAE--GDEEDKQSE QKL GRLN
DpseudoobscuraSyt1	VFLVVFGIIFFCVRRFL-KRRRT KDGK ---GKKG- VD MKSVQLLG SAYKEK -----VQPDMEELAE NAEE --DEEDKQSE QKL GRLN
DpersimilisSyt1	VFLVVFGIIFFCVRRFL-KRRRT KDGK ---GKKG- VD MKSVQLLG SAYKEK -----VQPDMEELAE NAEE --DEEDKQSE QKL GRLN
DwillistoniSyt1	VFLVVFGIIFFCVRRFL-KRRRT KDGK ---GKKG- VD MKSVQLLG SAYKEK -----VQPDMEELTENAE--GDEEDKQSE QKL GRLN
DvirilisSyt1	VFLVVFGIIFFCVRRFL-KRRRT KDGK ---GKKG- VD MKSVQLLG SAYKEK -----VQPDMEELTENAE--GDEEDKQSE QKL GRLN
DmojavensisSyt1	VFLVVFGIIFFCVRRFL-KRRRT KDGK ---GKKG- VD MKSVQLLG SAYKEK -----VQPDMEELTENAE--GDEEDKQSE QKL GRLN
DgrimshawiSyt1	VFLVVFGIIFFCVRRFL-KRRRT KDGK ---GKKG- VD MKSVQLLG SAYKEK -----VQPDMEELTENAE--GDEEDKQSE QKL GRLN
Celeganssnt_1var1	FILLVLACAFCLIRKLFGKRRHGEK NK --KGGLKGFFGKGQDVVDGK NIQG -----MAQDLEELGDAMEQNEKEQAEEKE EVKL GR IQ
Celeganssnt_1var2	FILLVLACAFCLIRKLFGKRRHGEK NK --KGGLKGFFGKGQDVVDGK NIQG -----MAQDLEELGDAMEQNEKEQAEEKE EVKL GR IQ
Cbrennerisnt_1var1	FILLLLVCGFLLIRKLFGKRRHGEK NK --KGGLKGFFGKGQDVVDGK NIQG -----MAQDLEELGDAMEQNEKAQAEEKE EVKL GR IQ
Cbrennerisnt_1var2	FILLLLVCGFLLIRKLFGKRRHGEK NK --KGGLKGFFGKGQDVVDGK NIQG -----MAQDLEELGDAMEQNEKAQAEEKE EVKL GR IQ
Cbriggsaesnt_1var1	FIFFLVLAFFFIIRKLFGKRRHGEK NK --KGGLKGFFGKGQDVVDGK NIQG -----MAQDLEELGDAMEQNEKAQAEEKE EVKL GR IQ
Cbriggsaesnt_1var2	FIFFLVLAFFFIIRKLFGKRRHGEK NK --KGGLKGFFGKGQDVVDGK NIQG -----MAQDLEELGDAMEQNEKAQAEEKE EVKL GR IQ
Cremaneisnt_1var1	FILLVLACAFFIIRKLFGKRRHGEK NK --KGGLKGFFGKGQDVVDGK NIQG -----MAQDLEELGDAMEQNEKAQAEEKE EVKL GR IQ
Cremaneisnt_1var2	FILLVLACAFFIIRKLFGKRRHGEK NK --KGGLKGFFGKGQDVVDGK NIQG -----MAQDLEELGDAMEQNEKAQAEEKE EVKL GR IQ
Cjaponicasnt_1var1	-----MAQDLEELGDAMEQNEKAQA DEKE EVKL GR IQ
Cjaponicasnt_1var2	-----MAQDLEELGDAMEQNEKAQA DEKE EVKL GR IQ
Celeganssnt_3	-----MAQDLEEL-----MSVSKKKDEDKEKK FL GRLQ
Cbrennerisnt_3	-----MSVSKKKDEDKEKK FL GRLQ
Cbriggsaesnt_3	-----MSVSKKKDEDKEKK FL GRLQ
Cremaneisnt_3	-----MSVSKKKDEDKEKK FL GRLQ
Cjaponicasnt_3	-----MSVSKKKDDDEKK FL GRLQ

TadhaerensSyt1 YAMEYDFQSSELTITVLEGNFVPMVDIGGASDPYVYKYLPPDRKKLVTKVQYKTLNPIFNESVTIK-VPYSELQNRNVLFSVYDHRDRSRHDVIGHLRIPADVLCENLEQWSALEKADSSK---EKKSELGLCFCFSRLRYV
 NvectensisSyt1 FTLDYSFDTNTLTVGIRADIPAKDFSGSDPYVKYIMLLPDKKKKYEETKVRHKTLPVPFNETFQFK-VPYAEIGSKTLVFAVYDFDRFSKHDQIGQVPLNSVDLGRVVEWRDLTSPE-SDS--EKENKLGDCFCFSRLRYV
 CapitellaSyt1var1 FSLDYDFQKGELAVGVIGQADLPGMDSGTSDDPYVKVYLLPEKKKKHETKVRHKTLPVPFNETFNFK-VPYAEEMGSKTLVFAVYDFDRFSKHDQIGQVPLNSVDLGRVVEWRDLTSPE-SDS--EKENKLGDCFCFSRLRYV
 CapitellaSyt1var2 FSLDYDFQKGELAVGVIGQADLPGMDSGTSDDPYVKVYLLPEKKKKHETKVRHKTLPVPFNETFNFK-VPYAEEMGSKTLVFAVYDFDRFSKHDQIGQVPLNSVDLGRVVEWRDLTSPE-SDS--EKENKLGDCFCFSRLRYV
 HrobustaSyt1a FMSDYDFQKSELVSGVIGQAVDLPGMDSGSDPYVKVYIMPDKKKKFETKVRHKTLPVPFNETFQFK-VPYAEIGSKTLVFAVYDFDRFSKHDQIGQVPLNSVDLGRVVEWRDLTSPE--SE--EKENKLGDCFCFSRLRYV
 HrobustaSyt1b -----xVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYSEIANRNLTVFTVYDFDRFSKHDQIGQVPLNSVDLGRVVEWRDLTSPEGDI---EKDSRLGDCFCFSRLRYV
 HrobustaSyt1c -----XLLIGVIAQRNLPAADVCGTSDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-ITVVELASKTTLVFAVYDFDRFLKHDVIGQVPLNSVDLGRVVEWRDLTSPE---DRENKLGDCFCFSRLRYV
 HrobustaSyt1d YSLDYDFNRNELSVGVMEYVGLPMDVSGTSDPYVKVYLLPDKKK-ETKVRHKTLPVPFNETFQFK-IAYSELSSRISITFVYDFDRFSKHDQIGQVPLNSVDLGRVVEWRDLTSPEGDI---DKSTRGLGDCFCFSRLRYV
 HrobustaSyt1e YSLDYDYNASEVITITMIECTDLPAMDNNKFSDDPYKFFLPDKA-YQTKVINKSLNPVPFNETFSVK-IPYAEITKRTLGLILYDHNLFKSKHDQIGKVDLELSSVDFGDVVKWAHIQKPDSENC--GEDSRGLSYFTLR
 LgiganteaSyt1var1 FSLDYDFQKAEVSGVQVQADLPGMDSGTSDDPYVKVYLLPDKKKKYEETKVRHKTLPVPFNETFQFK-VPYAEIGAKTLVFAVYDFDRFSKHDQIGQVPLNSVDLGRVVEWRDLTSPE-NEA--EKENKLGDCFCFSRLRYV
 LgiganteaSyt1var2 FSLDYDFQKAEVSGVQVQADLPGMDSGTSDDPYVKVYLLPDKKKKYEETKVRHKTLPVPFNETFQFK-VPYAEIGAKTLVFAVYDFDRFSKHDQIGQVPLNSVDLGRVVEWRDLTSPE-NEA--EKENKLGDCFCFSRLRYV
 CsavignyiSyt1 FSLDYDFQNNLAVGVIGQADLPGMDSGTSDDPYVKVYLLPDKKKKQETKVRHKTLPVPFNETFNFK-VPYNEIGGKTLVFAVYDFDRFSKHDQIGEVVPMNQVDLGTITEWQDLTSAE-NDK--ENE--KLGDICFCFSRLRYV
 ScinturnalisSyt1 FSLDYDFQNNLAVGVIGQADLPGMDSGTSDDPYVKVYLLPDKKKKQETKVRHKTLPVPFNETFNFK-VPYNEIGGKTLVFAVYDFDRFSKHDQIGEVVPMNQVDLGTITEWQDLTSAE-NDK--ENE--KLGDICFCFSRLRYV
 SpurpuratusSyt1var1 FSLDYDFQEGKLVGVGMQASELPGMDFSGTSDDPYVKVYLLPDKKKKYEETKVRHKTLPVPFNETFQFK-VPYSEVSSKTTLVFAVYDFDRFSKHDQIGEVVKLSQVDLGSVVEWRDLQSAEVPGG--EKKSELGDCFCFSRLRYV
 SpurpuratusSyt1var2 FSLDYDFQEGKLVGVGMQASELPGMDFSGTSDDPYVKVYLLPDKKKKYEETKVRHKTLPVPFNETFQFK-VPYSEVSSKTTLVFAVYDFDRFSKHDQIGEVVKLSQVDLGSVVEWRDLQSAEVPGG--EKKSELGDCFCFSRLRYV
 BfloridaeSyt1a FSLDYDFEAGQLKVGVIQADLPAMDAGTSDDPYVKVYLLPDKKKKYEETKVRHKTLPVPFNETFQFK-DVKFNEIGSKTLVFAVYDFDRFGGHDIGEVVPMNSVDLGRVVEWRDLTSAE-KEG-QNE--KLGDICFCFSRLRYV
 BfloridaeSyt1bvar1 FSLDYDFQNNQMRVGLQAKDLPGMDFSGTSDDPYVTVKILPEKKKKFEETKVRHKTLPVPFNETFNFK-DLKFSELSNKIILFLIYDFDRFSKHDQIGEVVPLSSVDLARVVEWRDLTSAE-NEA--EKENKLGDCFCFSRLRYV
 BfloridaeSyt1bvar2 FSLDYDFQNNQMRVGLQAKDLPGMDFSGTSDDPYVTVKILPEKKKKFEETKVRHKTLPVPFNETFNFK-DLKFSELSNKIILFLIYDFDRFSKHDQIGEVVPLSSVDLARVVEWRDLTSAE-NEA--EKENKLGDCFCFSRLRYV
 BfloridaeSyt1bvar3 FSLDYDFQNNQMRVGLQAKDLPGMDFSGTSDDPYVTVKILPEKKKKFEETKVRHKTLPVPFNETFNFK-DLKFSELSNKIILFLIYDFDRFSKHDQIGEVVPLSSVDLARVVEWRDLTSAE-NEA--EKENKLGDCFCFSRLRYV
 IscapariisSyt1 FKL DYDFNTNLA VTVIQAE LPLGMDSGTSDDPYVKVYLLPDKKKKYEETKVRHKTLPVPFNETFNFK-VPYAEITSKTLVFAVYDFDRFSKHDQIGEVVKPLCQIDLQATIEWRDLTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 DpulexSyt1var1 YKLEYDFNQSNLVTVVHQAEELPALDMGGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYADAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCQIDLQATIEWAEVTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 DpulexSyt1var2 YKLEYDFNQSNLVTVVHQAEELPALDMGGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYADAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCQIDLQATIEWAEVTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 ApisumSyt1 FKL DYDFNQNTLS VTVIQAE LPLGMDSGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYADAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCQIDLQATIEWRDLTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 TcastaneumSyt1 YKLEYDFNQSNLSVTVVHQAEELPALDMGGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYADAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCQIDLQATIEWRDLTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 NvtripennisiSyt1 YKLEYDFNNSLAVTVIKAEELPALDMGGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYADAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCQIDLQATIEWRDLTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 AmelliferasSyt1 FKL DYDFNTNLS VTVIQAE LPLGMDSGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYADAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCQIDLQATIEWRDLTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 AgambiaeSyt1var1 YKLEYDFNNSALTVTVIQAEELPALDMGGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYAEAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCQIDLQATIEWRDLTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 AgambiaeSyt1var2 YKLEYDFNNSALTVTVIQAEELPALDMGGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYAEAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCQIDLQATIEWRDLTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 AgambiaeSyt1var3 YKLEYDFNNSALTVTVIQAEELPALDMGGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYAEAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCQIDLQATIEWRDLTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 AgambiaeSyt1var4 YKLEYDFNNSALTVTVIQAEELPALDMGGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYAEAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCQIDLQATIEWRDLTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 DmelanogasterSyt1var1 FKL DYDFNNSLAVTVIQAEELPALDMGGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYAEAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCTIDLQATIEWRDLTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 DmelanogasterSyt1var2 FKL DYDFNNSLAVTVIQAEELPALDMGGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYAEAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCTIDLQATIEWRDLTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 DmelanogasterSyt1var3 FKL DYDFNNSLAVTVIQAEELPALDMGGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYAEAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCTIDLQATIEWRDLTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 DsimulansSyt1 FKL DYDFNNSLAVTVIQAEELPALDMGGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYAEAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCTIDLQATIEWRDLTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 DsechelliaSyt1 FKL DYDFNNSLAVTVIQAEELPALDMGGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYAEAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCTIDLQATIEWRDLTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 DerecataSyt1 FKL DYDFNNSLAVTVIQAEELPALDMGGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYAEAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCTIDLQATIEWRDLTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 DyakubaSyt1 FKL DYDFNNSLAVTVIQAEELPALDMGGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYAEAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCTIDLQATIEWRDLTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 DananassaeSyt1 FKL DYDFNNSLAVTVIQAEELPALDMGGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYAEAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCTIDLQATIEWRDLTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 DpseudoboscraSyt1 FKL DYDFNNSLAVTVIQAEELPALDMGGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYAEAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCTIDLQATIEWRDLTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 DpersimilisSyt1 FKL DYDFNNSLAVTVIQAEELPALDMGGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYAEAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCTIDLQATIEWRDLTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 DwillistonisSyt1 FKL DYDFNNSLAVTVIQAEELPALDMGGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYAEAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCTIDLQATIEWRDLTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 DvirilisSyt1 FKL DYDFNNSLAVTVIQAEELPALDMGGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYAEAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCTIDLQATIEWRDLTSVE-GEQ--GQDNKLGDCFCFSRLRYV
 DmojavensisSyt1 FKL DYDFNNSLAVTVIQAEELPALDMGGTSDDPYVKVYLLPDKKKKFEETKVRHKTLPVPFNETFQFK-VPYAEAMAKTLVFAVYDFDRFSKHDQIGEVVKPLCTIDLQATIEWRDLTSVE-GEQ--GQDNKLG

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TadhaerensSyt1	PTGGKLTIGIMEAKGLKKMDVGGSSDPYVKISLI--IDGKRRIKKKKTTIVKKRTLDPVWNEAYMFK-VPF	EKIKD	TKIVLAVMDHDLRGKSELIGQVQVVG	GSSEGAELRRHWS	DMLSSPRRPIAQW	HVLVD-----		
NvectensisSyt1	PSSGKLQITIVAEAKSLKSMDLTGYS	DPYVKIALV--QEGRKIKKKKTIVKKRTLN	PNYNETFTFT-VAF	EKIEQ	TSLIISVLDYDRVGKSEMIGKCVV	GELSSGADLRHWADMLASPRRSVAQWHTLHN-----		
CapitellaSyt1var1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKLALY--QGT	KRLKKKKTTIKKRTLN	PNYNESFTFE-VPF	EIQKVTMIITVVDYDRIGTSEPIGRVVL	GCNSTGTELRRHWS	DMLANPRRPIAQWHTLQEMPEK-----	
CapitellaSyt1var2	● PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKLSLM--LNG	KRIKKKKTTIKKCTLN	PNYNESFTFE-VPF	EIQKVTMIITVVDYDRIGTSEPIGRVVL	GCNSTGTELRRHWS	DMLANPRRPIAQWHTLQEMPEK-----	
HrobustaSyt1a	PTAGKLTIVILEAKNLKKMDVGGLS	DPYVKLALL--MNG	KRIKKKKSTIKKCTLN	PNYNESFSFE-VAF	EIQKISLDITVVDYDRIGTSDPIGHVLL	GCNATGTELRRHWS	DMLANPRRPIAQWHTLQEVPEKN-----	
HrobustaSyt1b	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKLCIT--MNG	KRLKKKKTTIRKCTLN	PNYNESFSFE-VPF	EIQKITLILTVVDYDRIGSSDPIGRVIL	GCNSSGTELRRHWS	DMLANPRRPIAQWHTLQEVPEKN-----	
HrobustaSyt1c	PTSGKLTVVILEAKNLKKMDVGGLS	DPYVKLSLL--MNG	KRIKKKKTTIKKCTLN	PNYNESFTFE-IPF	ETIQOTMLVVTVVDYDRIGTSEPIGRVVL	GCNSSGTELRRHWS	DMLANPRRPIAQWHTLQEVPEKN-----	
HrobustaSyt1d	PTAAKLVVILEAKNLKKMDISGLS	DPYVKVTLY--IGG	KVKKKKSTVKKRTLN	PNYNESFTFE-VTF	DQIKASLVITVMDYDKIGFSDPMGQV	VSSKASGTGLRRHWS	DMLANPRRPIAQWHTLQEVPEKN-----	
HrobustaSyt1e	PTAGKLTVVILEAKNLKKMDISGLS	DPYVKISLM--MGS	KRIKKKTSVKKCTLN	PNYNESFTFE-VTF	DQIKTSLIISVIDYDLIGKSETMGAIT	VGCNSTGSP	LKHWEMLSNPRRPIAQWHTLQEVPEKN-----	
LgiganteaSyt1var1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALY--QGS	KRLKKKKTTIKKCTLN	PNYNESFTFE-VPF	EIQKVLIIITVVDYDRIGTSEPIGRVVL	GCNSTGTELRRHWS	DMLANPRRPIAQWHTLQEVPEKN-----	
LgiganteaSyt1var2	● PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKISMN--LNG	KRIKKKKTTIKKCTLN	PNYNESFTFE-VPF	EIQKVLIIITVVDYDRIGTSEPIGRVVL	GCNSTGTELRRHWS	DMLANPRRPIAQWHTLQEVPEKN-----	
CsavignyiSyt1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKITLM--QSG	KRLKKKKTTIKKCTLN	PNYNESFTFE-VPF	EIQKVLVSVVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
CintestinalisSyt1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKITLM--QSG	KRLKKKKTTIKKCTLN	PNYNESFTFE-VPF	EIQKVLVSVVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
SpurpuratusSyt1var1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKISLY--MNN	KRMKKKTTIKKRTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
SpurpuratusSyt1var2	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKISLY--MNN	KRMKKKTTIKKRTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
BfloridaeSyt1a	PTKGQLTVVILEACKQLKKMDVGGLS	DPYVKIYLM--MNG	KRLKKKTTIKKCTLN	PNYNESFTFE-IPF	DQIKVBLVITVLDVADIGSSDPIGKAIL	GCNATGAELRRHWS	DMLANPRRPIAQWHTLQEVPEKN-----	
BfloridaeSyt1bvar1	PTAGKLTIVILEAKNLKKCDVGGLS	DPYVKMQLY--SNN	KRLKKKTTIKKRTLN	PNYNESFTFE-VPF	EIQRVBLKLTVMWDRTSKNDPIGELRL	GPNAAGAEELRRHWS	DMLANPRRPIAQWHTLQEVPEKN-----	
BfloridaeSyt1bvar2	PTAGKLTIVILEAKNLKKCDVGGLS	DPYVKMQLY--SNN	KRLKKKTTIKKRTLN	PNYNESFTFE-VPF	EIQRVBLKLTVMWDRTSKNDPIGELRL	GPNAAGAEELRRHWS	DMLANPRRPIAQWHTLQEVPEKN-----	
BfloridaeSyt1bvar3	PTAGKLTIVILEAKNLKKCDVGGLS	DPYVKMQLY--SNN	KRLKKKTTIKKRTLN	PNYNESFTFE-VPF	EIQRVBLKLTVMWDRTSKNDPIGELRL	GPNAAGAEELRRHWS	DMLANPRRPIAQWHTLQEVPEKN-----	
IscapularisSyt1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--MNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
DpulexSyt1var1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
DpulexSyt1var2	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
ApisumSyt1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
TcastaneumSyt1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALV--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
NvitripennisSyt1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
AmelliferaSyt1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
AgambiaeSyt1var1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
AgambiaeSyt1var2	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
AgambiaeSyt1var3	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
AgambiaeSyt1var4	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
● MelanogasterSyt1var1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
DmelanogasterSyt1var2	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
DmelanogasterSyt1var3	● PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
DsimulansSyt1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
DsechelliaSyt1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
DerectaSyt1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
DyakubaSyt1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
DananassaeSyt1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
DpseudoobscuraSyt1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
DpersimilisSyt1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
DwillistoniSyt1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
DvirilisSyt1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
DmojavensisSyt1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
DgrimshawiSyt1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIALM--QNG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
Celeganssnt_1var1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKLEMFGE	DR-KRLKKKKTNIK	KRTLNPNYNESFVFDK	LPLHKMKKVS	LMITVMDYDKLGSNDAIGRCLLGCNGTGAEL	RRHWM	DMLASPRRPIAQWHTLQEVPEKN-----
Cbrennerisnt_1var1	● PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKLEMFGE	DR-KRLKKKKTNIK	KRTLNPNYNESFVFDK	LPLHKMKKVS	LMITVMDYDKLGSNDAIGRCLLGCNGTGAEL	RRHWM	DMLASPRRPIAQWHTLQEVPEKN-----
Cbrennerisnt_1var2	● PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIVLM--QGG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
Cbriggsaesnt_1var1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIVLM--QGG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
Cbriggsaesnt_1var2	● PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIVLM--QGG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
Cremaneisnt_1var1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIVLM--QGG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
Cremaneisnt_1var2	● PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIVLM--QGG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
Cjaponicasnt_1var1	PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKLEMF	G-DDGKRLKKKKTNIK	RNTLNPNYNESFVFDK	LQLHKIKKVS	LMITVMDYDKLGSNDAIGRCLLGCNGTGAEL	RRHWM	DMLASPRRPIAQWHTLQEVPEKN-----
Cjaponicasnt_1var2	● PTAGKLTVVILEAKNLKKMDVGGLS	DPYVKIVLM--QGG	KRLKKKTSIKKCTLN	PNYNESFTFE-VPF	EIQKVLVVTVVDYDRIGTSEPIGRVVL	GCNATGTGLRRHWS	DMLASPRRPIAQWHTLQEVPEKN-----	
Celegansnt_3	PNKNKLSVVVMECKNLKKMDVGLS	DPYVKIYLM--MGT	KRLKKKTTIKMKT	LNPNYNESFVFD	VTEKMMRVHLHVT	VS	SDYDRVGSNBERIGQVIGTCATGVALKQW	NDMLATPRRSVAQWHTLQEVPEKN-----
Cbrennerisnt_3	PNKNKLSVVVMECKNLKKMDVGLS	DPYVKIYLM--MGT	KRLKKKTTIKMKT	LNPNYNESFVFD	VTEKMMRVHLHVT	VS	SDYDRVGSNBERIGQVIGTCATGVALKQW	NDMLATPRRSVAQWHTLQEVPEKN-----
Cbriggsaesnt_3	PNKNKLSVVVMECKNLKKMDVGLS	DPYVKIYLM--MGT	KRLKKKTTIKMKT	LNPNYNESFVFD	VTEKMMRVHLHVT	VS	SDYDRVGSNBERIGQVIGTCATGVALKQW	NDMLATPRRSVAQWHTLQEVPEKN-----
Cremaneisnt_3	PNKNKLSVVVMECKNLKKMDVGLS	DPYVKIYLM--MGT	KRLKKKTTIKMKT	LNPNYNESFVFD	VTEKMMRVHLHVT	VS	SDYDRVGSNBERIGQVIGTCATGVALKQW	NDMLATPRRSVAQWHTLQEVPEKN-----
Cjaponicasnt_3	PNKNKLSVVVMECKNLKKMDVGLS	DPYVKIYLM--MGT	KRLKKKTTIKMKT	LNPNYNESFVFD	VTEKMMRVHLHVT	VS	SDYDRVGSNBERIGQVIGTCATGVALKQW	NDMLATPRRSVAQWHTLQEVPEKN-----