

100

Trubripossyt15	-----XQAVLLAAGLSAGLLVLLLLGLAVYRLKQOQKQCSQSYEEL-----PSTRPSAPGPSAPVIPVSQNSW--A-
Tnigroviridissyt15	-----MADQAVLLAAGLSVVLVLLLLGLVFYHLWKKKEKEKEKKEREG-----RSQYEELPEGSAPVIPVSQNSW--A-
Gaculeatussy15	-----MADRVLVLAVGLSVVLL-LLLLGLLIVVYLWRSKRMKARQSYEEL-----LPSAPSVPACAPVILVSDSL--P-
Olatipessyt15	-----MADQMLLLAAGLSV-----GLLVFCSWRKKTR--SQSYQEL-----FSVVPSVPAGPAPLILVSGQSWTLP-
Dreriosyt15	-----MADLLVALACGLSAAFLLLLFLGLSVYLLWRKRRT--QTFYRGL-----IPATPTIPRCITPVLTQSSTYSGSH
Xtropicalissyt15	-----MSEEVAAVAGGVIGVVAILLIGIGVYILRRKFCF--SSQYEEF-----FNQVPPTHTEVIAVDKDSMSLGTHNK
Acarolinensissyt15	-----XQVAADVGGVVGILLVLLIGIAVYLFWKVYLL--KASYEEL-----IESASPVRODTVVT-QLSSSP--HPP
GgallusSYT15	-----MPEQVVTVAGGVTVGILLFVLIGVTAYLLWKKLCL--AYSQYEL-----PNTVKTTPVNAILQDQSSSEI--QPK
TguttataSYT15	-----MPEQAVAVAGGIIGGTLFVLLGITAYMLWKKFCF--LSSYEKL-----INPVKTTNANGIFQDQANSEI--QRE
OanatinusSyt15	-----
MdomesticaSyt15	-----XQVTIVAGGVIAGLLLVLLIGIMGYCLWKKLCV--APTYEEL-----TGMPSPGQEKQPSQAAVIQT-----
MmusculusSyt15var1	-----MAEQLAFLIGGIIG--LLLLIGVSC-CLWRRFCA--TFTYEELP-----ETSDPATISYFSRKEDRLYQYSGTTPP-
MmusculusSyt15var2	-----MAEQLAFLIGGIIG--LLLLIGVSC-CLWRRFCA--TFTYEELP-----ETSDPATISYFSRKEDRLYQYSGTTPP-
HsapiensSYT15var1	-----MAEQALALVIGGTIGGLLLLLLIGASC-CLWRRFCA--TLTYEELP-----GTPA-MATTAASSGQRDRPCQPHARTQL
HsapiensSYT15var2	-----MAEQALALVIGGTIGGLLLLLLIGASC-CLWRRFCA--TLTYEELP-----GTPA-MATTAASSGQRDRPCQPHARTQL
HsapiensSYT15var3	● MGVVLSPHPAPSRREPLAPLAPGTRPGWSPAVSGSSRSALRPSTAGPGPGTGWGGTAASGRWVPAPAVHC--AAPRAAG--HQHHGPPCLCSPDGAPRRFKRRPGSPAPAAQTGETSLREQP
HsapiensSYT15var4	●
HsapiensSYT15var5	-----MAEQALALVIGGTIGGLLLLLLIGASC-CLWRRFCA--TLTYEELP-----GTPA-MATTAASSGQRDRPCQPHARTQL
HsapiensSYT15var6	-----

200

Trubripossyt15	--TL--IPFQLPPRCPTQPEWSRTEGEE-----E--RKMEAQKDLLAPRGSLSVSWYFVGTVLAGLYSPPPLNEVMAPPFGMAPRLCFSVEYRHSSEQLVVSLLRLSNLPPIRF--HGNVTLAE
Tnigroviridissyt15	--AL--IPFSLPRLTLTKLKEWNLHEGEE-----E--VKMEAQ--DVPAHRGSLSVSRWYFVGTVTAGLYSDPLGQVVPAPFGMAARLCFSVEYRHGTEQLAVSLLRLGNLPPIRF--HGNVTLVQ
Gaculeatussy15	--TL--IPFTVPPRFTTQNGDLKNEE-----EAGMKMETQRDILAHRGSLSVSRWYFVGTVLAGLYSPPPLNEVMAPPFGMATRLCFSVEYRHSSEQLAVSLLRLGNLPPIRF--HGNVTLVQ
Olatipessyt15	--SD--IPFTIPPRFIQSKKDLKNDLEAAEGQEIQKTETOQDILAHRESLSVRGWYFVGSVLTGLYSVLSALNEVVAPPFGMATRLCFSVEYRHSSEQLVVSLLRLGNLPPIRF--HSNATLVE
Dreriosyt15	GSGD--VPFIVPPRFKRAPQLNDKKEE-----SNSAEQWDLNPDLSQRGSLTVSWYFVGSIRPDLQYPEPSEWALPDGSAVRLWFALRYQDDKEQLVVSLLRAANLPTQC--QRNITLVK
Xtropicalissyt15	DAVMKHVPFIVPPKFRGRDWIGLNGE----RIQDSEPYTAPDFLPRSFCSLGGAYVVGSGINPALKYKFPEDKSETDFPEGNIGRLWFSVEYEPESERLLVSLIKARKLQSPA--SSCNPFVK
Acarolinensissyt15	KARTRSVPFIVPPKFNRQAWTEMINGE----HVQEDSDLYITPDSGPRSSFHSLAGAYLVGTINPELYKFPEDKSETDFPEGNIGRLWFSVEYEPESERLLVSLIKARKLQSPA--SSCNPFVK
GgallusSYT15	STRKSIPFIIPTLHGRDWINLTNEE----QIQEDNNSCMTPOSGRSSFHSLAGAYLVGTINPELYKFPEDKSETDFPEGNIGRLWFSVEYEPESERLLVSLIKARKLQSPA--SSCNPFVK
TguttataSYT15	NTRRSVVPFVIPTLHGRDWIHLTNEE----QVQEDRDPFMTPOSGRSSFHSLAGAYLVGTINPELYKFPEDKSETDFPEGNIGRLWFSVEYEPESERLLVSLIKARKLQSPA--SSCNPFVK
OanatinusSyt15	--XEQGVVPFVPPSLPSRDWMTLTRGK----RVQDDGDRYLAPDFLPRPSFRSLAGVDAMGALDPDLKYPEDQSETDFPEGCLGRLWFSVTEYEPESERLLVGLIRAQRLRAPA--DPCSPLVE
MdomesticaSyt15	--NRTQGIPIFVPPSFYGRDWITLTNGE----RVQDESDDPYIAPEFLPRSFFHSLAGAYLVGTINPELYKFPEDKSETDFPEGCLGRLWFSVTEYEPESERLLVGLIRAQRLRAPA--DPCSPLVE
MmusculusSyt15var1	--GRLPSVPFVPPSHQGRDWVPLHGGD----WAVAPQDPCPVPEHMACTSSAKPGDACMGSGINPELYKFPEDTSETDFPDGCLGRLWFSVEYEPESERLLVGLIKAQQLQVPS--ETCSTLVK
MmusculusSyt15var2	--GRLPSVPFVPPSHQGRDWVPLHGGD----WAVAPQDPCPVPEHMACTSSAKPGDACMGSGINPELYKFPEDTSETDFPDGCLGRLWFSVEYEPESERLLVGLIKAQQLQVPS--ETCSTLVK
HsapiensSYT15var1	--SRPPAVPFVPPPTLQGRDWVPLHSGE----WADAPWDPCPASELLPHTSSGGLDGACMGVGAINPELYKFPEDKSETDFPDGCLGRLWFSVEYEPESERLLVGLIKAQHLQAPS--ETCSPLVK
HsapiensSYT15var2	--SRPPAVPFVPPPTLQGRDWVPLHSGE----WADAPWDPCPASELLPHTSSGGLDGACMGVGAINPELYKFPEDKSETDFPDGCLGRLWFSVEYEPESERLLVGLIKAQHLQAPS--ETCSPLVK
HsapiensSYT15var3	HGGPPAVPFVPPPTLQGRDWVPLHSGE----WADAPWDPCPASELLPHTSSGGLDGACMGVGAINPELYKFPEDKSETDFPDGCLGRLWFSVEYEPESERLLVGLIKAQHLQAPS--ETCSPLVK
HsapiensSYT15var4	--SRPPAVPFVPPPTLQGRDWVPLHSGE----WADAPWDPCPASELLPHTSSGGLDGACMGVGAINPELYKFPEDKSETDFPDGCLGRLWFSVEYEPESERLLVGLIKAQHLQAPS--ETCSPLVK
HsapiensSYT15var5	--SRPPAVPFVPPPTLQGRDWVPLHSGE----WADAPWDPCPASELLPHTSSGGLDGACMGVGAINPELYKFPEDKSETDFPDGCLGRLWFSVEYEPESERLLVGLIKAQHLQAPS--ETCSPLVK
HsapiensSYT15var6	● --SRPPAVPFVPPPTLQGRDWVPLHSGE----WADAPWDPCPASELLPHTSSGGLDGACMGVGAINPELYKFPEDKSETDFPDGCLGRLWFSVEYEPESERLLVGLIKAQHLQAPS--ETCSPLVK

300

Trubripossyt15	LRLLP-DRRSRQAKARGTGPDPFNLFIFQVSAVRVPRSTLSVCVLSTEQDGRRAVGRILFPLE-GE LGQA-GRVLWRDLETEGDTQCSDLGDVQISLCYSPALQRLSVVVLARAGLQLLP
Tnigroviridissyt15	LRLLP-DRRSRQAKARGTGPDPFNDVFIFQVSAVRVPRSTLSVCVLSTEQDGRRAVGRILFPLE-GE LGQA-GRVLWRDLETEGDTQCSDLGDVQISLCYSPALQRLSVVVLARAGLQLLP
Gaculeatussy15	LRLLP-DRRSRQAKARGTGPDPFSDRFVQVSCVPRSTLSVCVLSTEQDGRRAVGRILFPLE-GE LGQA-GRVLWRDLETEGDTQCSDLGDVQISLCYSPVQRLYVVVLARAGLQLLT
Olatipessyt15	LRLLP-DRRPRQAKGRGTGPDPFNDFVVFQVSGVCVQECTLSVCVLSREADGKRHAVGRVLFPLK-GE LGLA-GRVLWKDLELDDVQCSSELGDVQISLCYSSSQRLSVGVLRARAGLQLLT
Dreriosyt15	LQLLPSDDRRHRQAKARRKGCHPQFNDTFVFQVSNSCVDQCSLNMSLFTVDHQKHHLMGQILIPLICSELKEAAGKVQRDLNDSDDQLSKNGDIQVSLNYNQSLHRLTVVVLARAGLQCCS
Xtropicalissyt15	IHLLP-DERRHLQSKTKRKTLPQFDETFVFQVSGKTVHQRTLRFISIYHVDKIKKHLLGQVIFPLKNEALTDENKLVWRDLEKNLEPPSEYGNIQFSLSYNDYLGRLTVVVLARAGLQFLE
Acarolinensissyt15	IYLLP-DERRYLQSKTKRKNLNPQFDETFVFQVSSNTLHQRTLKFCVYHVDKQKXVILLGQVTFPLKNESLSGDGKVIWVRDLEADNLEVPSEHGDQFSLSYNGYLGRLTVVVLARAGLKFQK
GgallusSYT15	IYLLP-DERCYLQSKVKRKTLPQFDETFVFQVSSKTLQRTLKFLVYHVDKQKHHLHGQVIFPLKNETLTDSDSKVVWRDLEARENLEPPSEYGDQFSLSYNDYLGRLTVVVLARAGLKFQD
TguttataSYT15	IYLLP-DERSYLQSKTKRKTLPQFDETFVFQVSSKMLLQRTLKFLVYHVDKQKHHLHGQVIFPLKNEALTDENKLVWRDLEKNLEPPSELGDQFSLSYNDYLGRLTVVVLARAGLKLQE
OanatinusSyt15	LHLLP-DERRFLQSRPKRKTDPNPQFDESFFVFQVSSRTVTQRIKFSVYHVDKQKHHLHGQVLFPLKDEVLTSRSPVWVRDLEAENLEPPSEFGDIQFSLSYNDYLGRLTVVVLARAGLKFLE
MdomesticaSyt15	LYLLP-DERRFLQSKMKRKTLPNPQFDETFVFQVSSRTITQRMKFSVYHVDKQKHHLHGQVLFPLKDEMLSDSRNIIWRDLEPELEPPSEFGDIQFSLSYNDYLGRLTVVVLARAGLKFQD
MmusculusSyt15var1	LHLLP-DERRFLQSKTKRKTLPNPQFDETFVFQVSSKSVTQRVLFKFSVYHVDKQKHHLHGQVLFPLKNETLVGDHHRIIWRDLEAKNLEPPSEFGDIQFCLSYNDYLSRLTVVVLARAGLQLE
MmusculusSyt15var2	LHLLP-DERRFLQSKTKRKTLPNPQFDETFVFQVSSKSVTQRVLFKFSVYHVDKQKHHLHGQVLFPLKNETLVGDHHRIIWRDLEAKNLEPPSEFGDIQFCLSYNDYLSRLTVVVLARAGLQLE
HsapiensSYT15var1	LYLLP-DERRFLQSKTKRKTLPNPQFDETFVFQVSSKSVTQRVLFKFSVYHVDKQKHHLHGQVLFPLKNETLVGDHHRIIWRDLEAKNLEPPSEFGDIQFCLSYNDYLSRLTVVVLARAGLQLE
HsapiensSYT15var2	LYLLP-DERRFLQSKTKRKTLPNPQFDETFVFQVSSKSVTQRVLFKFSVYHVDKQKHHLHGQVLFPLKNETLVGDHHRIIWRDLEAKNLEPPSEFGDIQFCLSYNDYLSRLTVVVLARAGLQLE
HsapiensSYT15var3	LYLLP-DERRFLQSKTKRKTLPNPQFDETFVFQVSSKSVTQRVLFKFSVYHVDKQKHHLHGQVLFPLKNETLVGDHHRIIWRDLEAKNLEPPSEFGDIQFCLSYNDYLSRLTVVVLARAGLQLE
HsapiensSYT15var4	LYLLP-DERRFLQSKTKRKTLPNPQFDETFVFQVSSKSVTQRVLFKFSVYHVDKQKHHLHGQVLFPLKNETLVGDHHRIIWRDLEAKNLEPPSEFGDIQFCLSYNDYLSRLTVVVLARAGLQLE
HsapiensSYT15var5	LYLLP-DERRFLQSKTKRKTLPNPQFDETFVFQVSSKSVTQRVLFKFSVYHVDKQKHHLHGQVLFPLKNETLVGDHHRIIWRDLEAKNLEPPSEFGDIQFCLSYNDYLSRLTVVVLARAGLQLE
HsapiensSYT15var6	LYLLP-DERRFLQSKTKRKTLPNPQFDETFVFQVSSKSVTQRVLFKFSVYHVDKQKHHLHGQVLFPLKNETLVGDHHRIIWRDLEAKNLEPPSEFGDIQFCLSYNDYLSRLTVVVLARAGLQLE

400

Trubripossyt15	DA-----GVCQVSLQIHQSQVVKSKRSCVVKGESEPSFSHRHTTFKLRPQHLEEAACLRVELQQPSSVHSEPPPIILGMLVLGPFMYARGPQLQHWMDMVSSPDQAIKRWHGLGRAS-----
Tnigroviridissyt15	DA-----GVCQVSLQIHTQVVKIKRSCVVTGGRDPCFSHRHTTFKLRSRHLDEACLRFELLQPGGVHSEPEATLGVLVLGPFMYARGPQLQHWMDMLSTPQDTIKRWHGLGRPS-----
Gaculeatussy15	DA-----GVCQVASLQIHTQVVKMKRSCVVKSQNDPTFHHRVTFKLRSQLHDEACLRFELQPNVVPSEPPALLGVLVLGPFMYARGPQLQHWMDMVNTPQAEVWLWHGLGRAT-----
Olatipessyt15	DA-----GVCVKVGLQLHSRVVITKRSCEVNEGDPFFNYKTTFKLLKLQHLEEAACLRFEIQPNKSHSEELACQLGGLVLGPFMYARGPQLQHWMDMVNPEQEPVKLWHGLGRAA-----
Dreriosyt15	EA-----AVCAKVCCLKIHTQVVRNKWTTVAK-GNSPSFNEKLTFRLLKMQLDLTAQLSLQIQPS---TEKPVLLAIVVIGPFMYARGRELEHWNMDMVKSPQELVRQWHPGDSADTVQGPO
Xtropicalissyt15	ERGVII--SSAFVVKVFMNHNNKLVKCKKTAACIGTANPVYNETFSFKVEHGLDITASLSLAVYQNA--QGEKSHLLGRVVVGPPMYTRGRELEHWNEMLNKPKDLVKRWHALCINT-----
Acarolinensissyt15	EKQAFDKCGVVFVKVSLMKQNQFIKAKRTTAVVGLSDLLFNETLSFKVDQLELDTTSLSLSVLQDA--EEGETYSLGRVVVGPFMYTRGKLEHWNEMISKPKELVKRWHALSLSS-----
GgallusSYT15	ESRD---VSYYVKVSLMNHNNKLVRSKKTAAVLGSPNPEYNEFSFKANPELELDTASLSLVLQNT--E-QKSHVLGRVVVGPFMYTRGKLEHWNEMISKPKELVKRWHALCST-----
TguttataSYT15	ESPA---AGVYVKVSLMNHNNKFIKSKKTAALGTPNPVYNETFSFKTDQTELDITASLSLVLQTI--KGEKTLLLGRVVVGPFMYTRGRELEHWNEMISKPKELVKRWHALCHST-----
OanatinusSyt15	ERNI---VSYYVKVSLMNHNNKFIKSKKTSAVLGSPNPVYNETFSFKVDPELDTASLSLTVLQTL--EGDKSHHLLGRVVVGPFMYTRGKLEHWNEMINKPKEMVKQWHALCPST-----
MdomesticaSyt15	DRNV---DVVFVKVSLMNHNNKLVCKKTSAVLGSPNPVYNETFSFKADATELDTASLSLTVVQNM--DGAQSHVLGRVVVGPFMYTRGKLEHWNEMLNKPKELVKRWHALSPSS-----
MmusculusSyt15var1	DRSV---VSVFVKVSLMNHNNKLVCKKRTSAVLGSVNPNVYNETFSFKVDNTELDITASLSLVLQTT--EGNKSSPLGRVVVGPFMYTRGKLEHWNEMLRKPKELVKRWHALCRPTEP----
MmusculusSyt15var2	● DRSV---VSVFVKVSLMNHNNKLVCKKRTSAVLGSVNPNVYNETFSFKVDNTELDITASLSLVLQTT--EGN--SKAWMGSRGHGVATQL-----
HsapiensSYT15var1	DRGI---VSVFVKVSLMNHNNKLVCKKTSAVLGSLNPVYNETFSFKADATELDTASLSLTVVQNM--EGDKSLGRVVVGPFMYTRGRELEHWNEMLSKPKELVKRWHALCRTTEP----
HsapiensSYT15var2	● DRGI---VSVFVKVSLMNHNNKLVCKKTSAVLGSLNPVYNETFSFKADATELDTASLSLTVVQNM--EGDK--QATTVELFLFHLTSG-----
HsapiensSYT15var3	DRGI---VSVFVKVSLMNHNNKLVCKKTSAVLGSLNPVYNETFSFKADATELDTASLSLTVVQNM--EGDKSLGRVVVGPFMYTRGRELEHWNEMLSKPKELVKRWHALCRTTEP----
HsapiensSYT15var4	DRGI---VSVFVKVSLMNHNNKLVCKKTSAVLGSLNPVYNETFSFKADATELDTASLSLTVVQNM--EGDKSLGRVVVGPFMYTRGRELEHWNEMLSKPKELVKRWHALCRTTEP----
HsapiensSYT15var5	● DRGI---VSVFVKVSLMNHNNKLVCKKTSAVLGSLNPVYNETFSFKADATELDTASLSLTVVQNM--EGDK--QATTVELFLFHLTSG-----
HsapiensSYT15var6	DRGI---VSVFVKVSLMNHNNKLVCKKTSAVLGSLNPVYNETFSFKADATELDTASLSLTVVQNM--EGDKSQQQLGRVVVGPFMYTRGRELEHWNEMLSKPKELVKRWHALCRTTEP----