

gi 17509593 ref NP_492969.1						
gi 193203328 ref NP_492970.2						
gi 72001273 ref NP_503375.2						
gi 17535345 ref NP_496130.1						
gi 17535347 ref NP_496123.1						
gi 17535587 ref NP_496025.1						
gi 72000000 ref NP_506771.2						
gi 32564384 ref NP_497162.2	MTHRTPNPFRRPHFLPFLKGMIPLLHEKFLVIFALELPISLRPKSDCFWFKC	TIDYRICKNKIGKFVELTEGQT-	-LSLQC-AYRRGTPKFTYP	-NELA-	-ERVQEFSEPLNTDVRIEDIRETDGSESC	131
gi 17568305 ref NP_509836.1	MKLKLIVLLILVHASASIKPPA	-IEVEDYQVEEDSIGKFVLEEHHR-	-LILKCSAHENGDLKINFPI	MEGVGYDENNFK	-KRMEETYDDAFGDKVLTLNDVREDTIGYSC	110
gi 17568311 ref NP_509835.1	MRVSLIEFLVLAQVVITLQFPT	-IKVDFHEVKHHS	SIGDVVELVEGKNRDISLTCYQ	QHK-NLKIEPPKREE	-HAGFPE-	107
gi 17535101 ref NP_496017.1						
gi 25146689 ref NP_741035.1						
gi 17535589 ref NP_496022.1						
gi 17563712 ref NP_506728.1						
gi 156104876 ref NP_002010.2	MVSYWWDIG	-VLLCALLSCLLLPGSSSGSKLKDPELSLKGTQHIMQAGOTLHLQCRGEAAHKWSLPEMVSK-	SERLSITK-SACGRNGKQFCSTLILNNTAQANHTGFYSCCKYLAVP			114
gi 114649218 ref XP_509605.2	MVSYWWDIG	-VLLCALLSCLLLPGSSSGSKLKDPELSLKGTQHIMQAGOTLHLQCRGEAAHKWSLPEMVSK-	SERLSITK-SACGRNGKQFCSTLILNNTAQANHTGFYSCCKYLAVP			114
gi 73993482 ref XP_534520.2	MVSCRDIG	-VLLCALLGGLLLPGSSSGSKLKGPELSLKGTQHVMQAGOTLYLKCRCGEAAHSWSLPETRKE-	SERLSITK-SACGRNGKQFCSTLILNMAQANHTGFYSCCKYLSIPA			114
gi 194671875 ref XP_001249769.2	MPAQVTENOVPRLCLAAFRFTREDVKKRPAQDCRGRAFRTRWRSSSGSIIRHPPELSLKGTQHVMQAGOTLNLIKCRGGAANAWYIPEAVNRENOSGKLNITK	-SACGKNLKKFCSTLILNAAQANHTGFYSCRYLSPAPA				138
gi 34328180 ref NP_034358.2	MVSCWDIA	-VLPYALLGCCLLLPGYGSKSLKVPELSLKGTQHVMQAGOTLFLKCRGEAAHSWSLPTTVSQE-	DKRLSTTPPSACGRDNRQFCSTLILNDAQANHTGFYSCRYLSPSTA			115
gi 11276093 ref NP_062179.1	MVSCWDIA	-VLPYALLGCCLLLPGYGSKSLKVPELSLKGTQHVMQAGOTLFLKCRGEAAHSWSLPTTVSQE-	DKKLSVTR-SACGRNNRQFCSTLILNMAQANHTGFYSCRYLPKST			114
gi 45383624 ref NP_989583.1	MPROLLSG	-TVLLGAFFLAGSTSGLKLVPVLSVNCRQHVQAGOTLNLTCSRGEMLHSWSLPEALSKD-	SKRLNVTK-YACGRNGTOFCSTLILSRTQANDIGRYSCRYPSPV			112
gi 72535148 ref NP_001014829.2	MFDILFVM	-IFCLSGRVLTLDKGRFSSPVLDVTEKQLVIERNQTLQSLCRGRWELQVLFSGVPKL	-YPCWIVN-FOCGKSNSOYCRLTLSPALQHTCSYRCYR-			108
	1.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100.....110.....120.....130.....140.....150					

gi 17509593 ref NP_492969.1						
gi 193203328 ref NP_492970.2						
gi 72001273 ref NP_503375.2						
gi 17535345 ref NP_496130.1						
gi 17535347 ref NP_496123.1						
gi 17535587 ref NP_496025.1						
gi 72000000 ref NP_506771.2						
gi 32564384 ref NP_497162.2	NSTEN-PAQSDSITHVFKHKIFPLPSKSVF	KKDLWNELTVPCKITKLTESKEIELYADGKLVASQ--DFDPRHGFRITRKGYAAQ--PSFFECKFNKNKTQSVDFIISK-	-EPIDNEYILFWEDSFPPFH	--VGYNFSLTC	266	
gi 17568305 ref NP_509836.1	SSMEH--SSINDTIVVFVHRKVFLPLKSVMIYKQG-EVMVPCKITKFDKSDELVASNLVKBAASKINVDQRYGFKITKKLYSE	QKIQIVDVFNCRYKKEENQATVIIITEKE-	-ASEDDGYHESWEKGQFQNH	--VGYNFSLTC	250	
gi 17568311 ref NP_509835.1	VSDDEFKESMLQNTVHIFVRLDIFVPLKTIYIEHNGS-EILLIPCKITKFDTKNVELVNV	-QLTKNMVTMKPNSTVFFECYI	NDSDNQDLDYIISNSDPDATLIDOYFFYWEKSNDVEY	--VGNNYSITC	233	
gi 17535101 ref NP_496017.1						
gi 25146689 ref NP_741035.1						
gi 17535589 ref NP_496022.1						
gi 17563712 ref NP_506728.1						
gi 156104876 ref NP_002010.2	SKKKETESAIXIFISDTGRPFVEMYSEIPEIIHMTEGRELVIPCRVTSNITVLKKFPLD	LIIPDGKRIIWDSRKGFIISNATYKEIGLLCEATVNGHLKY	NYLTHRQTNIIIDVQISPRPVKLLRGHTLVLNCATTPLNTRVOM			264
gi 114649218 ref XP_509605.2	SKKKETESAIXIFISDTGRPFVEMYSEIPEIIHMTEGRELVIPCRVTSNITVLKKFPLD	LIIPDGKRIIWDSRKGFIISNATYKEIGLLCEATVNGHLKY	NYLTHRQTNIIIDVQISPRPVKLLRGHTLVLNCATTPLNTRVOM			264
gi 73993482 ref XP_534520.2	SKKKETESTIYIFINDTGRPFVEMHSEIPEIIYMTEGROIVIPCRVTSNITVLKKFPLD	LILIPDGKRIIWDSRKGFIISNATYKEIGLLCEATVNGHLKY	NYLTHRQTNIIIDVQISPRPVKLLRGHTLVLNCATTPLNTRVOM			264
gi 194671875 ref XP_001249769.2	SKNK-AESTIYIFINDTGRPFVDMRSEIFKVINVMTGKVVIPCRVSSPSISVTLKKFPFG	LILIPDGKRIIWDSRKGFIISNATYKEIGLLCEATVNGHLKY	NYLTHRQTNIIIDVQISPRPVKLLRGHTLVLNCATTPLNTRVOM			287
gi 34328180 ref NP_034358.2	SKKKKAESXIXIFVSDAGSFPIEMHSDFIPKLVHMTGRELLIIPCRVTSNITVLKKFPLD	LILIPDGKRIIWDSRKGFIISNATYKEIGLLCEATVNGHLKY	NYLTHRQTNIIIDVQISPRPVKLLRGHTLVLNCATTPLNTRVOM			265
gi 11276093 ref NP_062179.1	SKKKKMEASAXIYIFVSDAGSFPIEMHSDFIPKLVHMTGRELLIIPCRVTSNITVLKKFPLD	LILIPDGKRIIWDSRKGFIISNATYKEIGLLCEATVNGHLKY	NYLTHRQTNIIIDVQISPRPVKLLRGHTLVLNCATTPLNTRVOM			264
gi 45383624 ref NP_989583.1	KKKR--ESIVVVFINDTSNPFVEMHSDIPKIIHMTVGEMLIIPCRVTAAPNIAVTLKKIPRE	LILIPDGKTIIWDNMRGFRIPETATYRFIGLLSCETTIGGHKYS	NYLTHRQTNIIIDVQISPRPVKLLRGHTLVLNCATTPLNTRVOM			260
gi 72535148 ref NP_001014829.2	-DKEKQTSVVIYITDSQRPFVKQSEIFDVVIMKEGEPYLVFPCRVTNPEAKVSLVKEPLHRITPDRHNIWNSRQGFIIRSPFFYIGLFSCE	IIVDGVKYTNKFLTHRPVTKLGVVYLNTGLVHVTLGEMLALNCTV	AEWNSRVSI			257
160.....170.....180.....190.....200.....210.....220.....230.....240.....250.....260.....270.....280.....290.....300					

gi 17509593 ref NP_492969.1	-----	
gi 193203328 ref NP_492970.2	-----	
gi 72001273 ref NP_503375.2	-----	
gi 17535345 ref NP_496130.1	-----	
gi 17535347 ref NP_496123.1	-----	
gi 17535587 ref NP_496025.1	-----	
gi 72000000 ref NP_506771.2	-----	
gi 32564384 ref NP_497162.2	HLVYIEPNGNAPK-LGELAFECPOCQSR-----LDNHILVIEKHHNVGRKELSLS-----AIHINKLQLRDAGKYRCIWKKTSKARQRIEHSLLHVSPTIACVRILEQPSFLAKAKASSGSVKLYAKEAVYPAG	386
gi 17568305 ref NP_509836.1	NLNLYNGSKIFHG-Y-TNKLSEICPQCSDH-----PGSHVHVDRHRIIG-NKIS-----TVRIQHLELEDSGKYTCIWEHENKEKITDHYLYVAPKKAGIKVIESTPTIMRIKE-NRATLAKFAIYFPE	368
gi 17568311 ref NP_509835.1	HLVYIGSDSLRPLNHEIVILECPQNQCDGGYNQSAHEIEKRSSGLRFQDPSSQDIVEKNITMLRYDRLSVYDRTSRTVNFOQLTSEDGTIVRCWWRNRKTNTIVLDYDLMFNQKGTOQIKIIEETSKORLKMRK-NESTLLFVKAPEPINF	382
gi 17535101 ref NP_496017.1	-----	
gi 25146689 ref NP_741035.1	-----	
gi 17535589 ref NP_496022.1	-----	
gi 17563712 ref NP_506728.1	-----	
gi 156104876 ref NP_002010.2	TWSYPDEKNKRASVRRRIDISNSMANIFYSVLTIDKMONKDGLYTCRVRSGPFKSVNTSVHIYDKAFIVKHRCQVLETWAGKRSYRLESMKVKAFPPEVWWLKDGLPATEKSARYLIRGYSLIIKDVTTEEDAGNYTILLSIKUSNV	414
gi 114649218 ref XP_509605.2	TWSYPDEKNKRASVRRRIDISNSMANIFYSVLTIDKMONEDGLYTCRVRSGPFKSVNTSVHIYDKAFIVKHRCQVLETWAGKRSYRLESMKVKAFPPEVWWLKDGLPATEKSARYLIRGYSLIIKDVTTEEDAGNYTILLSIKUSNV	414
gi 73993482 ref XP_534520.2	NWSYPGEKNKRASIRORIGRSSLANVVFYSLIIDKVNKDGLYTCHVKGSPFKSVNTSVHIYDKAFIVKHRCHEHLETWAGKRSYRLESVKVKAFPPEVWLKDGLPATEKSARYLIRGYSLIIKDVAEADGDMILLAICQSSV	414
gi 194671875 ref XP_001249769.2	TWSYPGGVNKRASIRORIDQRNPNNNVFYSILVLIDKVQKEDGLYTCHVKGSPFKSVNTSVHIYDKAFIVKHRCHEHLETWAGKRSYRLESVKVKAFPPEVWLKDGLPATEKSARYLIRGYSLIIKDVTTPEDAGDYTVLLGIKCANV	437
gi 34328180 ref NP_034358.2	SWNYPGKATKRASIRORIDRSHSENNVFVSLKINNVESRDKGFLYTCRVKGSSFQSFTNTSVHVVYEGKFITMRPQOCQAFAEVAGKRSYRLESMRVKAFPPEVWWLKDGLSLATEKSARYLIRGYSLIIKDVTTEADGDTILLGIKCSRL	415
gi 11276093 ref NP_062179.1	SWNYPGKATKRASIRORIDRSHSENNVFVSLKINNVESRDKGFLYTCRVKGSSFRTIFNTSVHVEYEGKFISVKHRKQPVQETAGRRRSYRLESMRVKAFPPEVWLKDGLSLATEKSARYLIRGYSLIIKDVTTEADGDTILLGIKCSRL	414
gi 45383624 ref NP_989583.1	TWTYPGEAMKRGSVTQRIDQKNREANVFYSLVLDKVRDIDKGQYACHVKGSPSNKLVNTTVIVYDKRFINLKRRRTMLEAVAGRKSYRRLPMKVAFPPEVTLKDGLPAAEKCARVMVKNYBLIIDKVVAEEDAGNYTIIISLRQWNL	410
gi 72535148 ref NP_001014829.2	TWTYPGEAMKRGSVTQRIDQKNREANVFYSLVPLSLSKADKGLYMKCQWTSGPSCRENTTIVYDOPFIRLKHRNGPVVQAFAGQKSFRLPKLKAFPAPEIWLKDGMVAERCYHVDFSLVIRDVAEEDAGNYTILIGIYGL	406
310.....320.....330.....340.....350.....360.....370.....380.....390.....400.....410.....420.....430.....440.....450	

gi 17509593 ref NP_492969.1	-----	
gi 193203328 ref NP_492970.2	-----	
gi 72001273 ref NP_503375.2	-----	
gi 17535345 ref NP_496130.1	-----	
gi 17535347 ref NP_496123.1	-----	
gi 17535587 ref NP_496025.1	-----	
gi 72000000 ref NP_506771.2	-----	
gi 32564384 ref NP_497162.2	NYTVIWRRTVNS-IEGPRDEIVEKG---LSATFLENESMEVLDIDCNK--SGKYLLSINVQDTSETIFWEVAVESDYPDVOLIIREPASFKVFGHQFYLLGTHLNIDCVTSIPLVIALLERKENFKIFIKVS-RSFVAD	524
gi 17568305 ref NP_509836.1	KESYTAKWSRIVNSSTHEGPOSEIINDDFRKIAATSFDCGAFSENLDIKAFAVSTNMSGVVLSISHMDTVQQVQWEVAIEIDEPDVQITVREPSSFFFISNOEYKPDINLHIECISISIPPAADVFFKTKNSEQFQEIEPNKLVSVG	518
gi 17568311 ref NP_509835.1	KKNTYTAKWSRLVNSTVEGGQOVEILRNFFFRQITTKTSGRNVFLETLNLKSPKLEM-SGIVVLSISNMDIVOVVKWIIEVEIDEPNAOLITRDPLULNISNOLELPNTNLNSIFCLAVSSPTDVLFEVRTDENEWFRGFYKNKLKID	530
gi 17535101 ref NP_496017.1	-MQSFIFVFLIYGFPHCQISNDGNIKINLPGNC-QDVIYRTRSER-G	46
gi 25146689 ref NP_741035.1	-MRVERIKYILLFSLMLHVYNSNSTFESFENPHISQISNVLY-MDQMFIYY-	50
gi 17535589 ref NP_496022.1	-----	
gi 17563712 ref NP_506728.1	-----	
gi 156104876 ref NP_002010.2	FKNLTATLIVNVKPQIYEKAVSSFPDPALYPLGSRQILTCIAYGIPQPTIKWFHWPCHNHSEARCDFCNEEFSILDADSMGNRRIESITQRMALIEGKNAKMASTLVVADSRIISIVCIASNKVGTGRNISFYIDVPGFHVNL	564
gi 114649218 ref XP_509605.2	FKNLTATLIVNVKPQIYEKAVSSFPDPALYPLGSRQILTCIAYGIPQPTIKWFHWPCHNHSEARCDFCNEEFSILDADSMGNRRIESITQRMALIEGKNAKMASTLVVADSRIISIVCIASNKVGTGRNISFYIDVPGFHVNL	564
gi 73993482 ref XP_534520.2	FKNLTATLIVNVKPQIYEKAVSSFPDPALYPLGSRQILTCIAYGIPQPTIKWFHWPCHNHSEARCDFCNEEFSILDADSMGNRRIESITQRMALIEGKNAKMASTLVVADSRIISIVCIASNKVGTGRNISFYIDVPGFHVNL	564
gi 194671875 ref XP_001249769.2	FKNFTVTLIVNVKPQIYEKAVSSFPDPALYPLGSRQILTCIAYGIPQPTIKWFHWPCHNHSEARCDFCNEEFSILDADSMGNRRIESITQRMALIEGKNAKMASTLVVADSRIISIVCIASNKVGTGRNISFYIDVPGFHVNL	587
gi 34328180 ref NP_034358.2	FKNLTATLIVNVKPQIYEKAVSSFPDPALYPLGSRQILTCIAYGIPQPTIKWFHWPCHNHSEARCDFCNEEFSILDADSMGNRRIESITQRMALIEGKNAKMASTLVVADSRIISIVCIASNKVGTGRNISFYIDVPGFHVNL	565
gi 11276093 ref NP_062179.1	FRNLTA/LIVNVKPQIYEKAVSSFPDPALYPLGSRQILTCIAYGIPQPTIKWFHWPCHNHSEARCDFCNEEFSILDADSMGNRRIESITQRMALIEGKNAKMASTLVVADSRIISIVCIASNKVGTGRNISFYIDVPGFHVNL	564
gi 45383624 ref NP_989583.1	SKNLTVLKVNVKPQIYEKAVSSFPDPNLVLLISKQVLTCTVYGIPPPILTWMWPCRNHSEIIRRGCFCERDGSFLNLDGSNIGNRQIOSIERRAIIEGKNAKMASTLVVAAEAKSSGIYSCVASKVGAERNVFLVTDVPSGFHISLE	560
gi 72535148 ref NP_001014829.2	FQNLTTLIVNVKPQIYEKAVSSFPDPNLVLLISKQVLTCTVYGIPPPILTWMWPCRNHSEIIRRGCFCERDGSFLNLDGSNIGNRQIOSIERRAIIEGKNAKMASTLVVAAEAKSSGIYSCVASKVGAERNVFLVTDVPSGFHISLE	554
460.....470.....480.....490.....500.....510.....520.....530.....540.....550.....560.....570.....580.....590.....600	

gi 17509593 ref NP_492969.1	-----MMLRLNLF <ins>I</ins> IF <ins>I</ins> IIFVLL--FLALSLFL-----	LYIIRRILTNSSNS-DLGGSEEDVERSLL-----	54
gi 193203328 ref NP_492970.2	-----MA <ins>P</ins> LNLQ-----	QNIR--LKDLLETS <ins>L</ins> LPISH <ins>P</ins> STLP-----	29
gi 72001273 ref NP_503375.2	-----MIDRNILV <ins>I</ins> FYCIIVVIALS <ins>V</ins> LWYVWF-----	YYLRLKEEHEETRSL-ESG <ins>I</ins> HSSQKTPS-----	56
gi 17535345 ref NP_496130.1	-----MTGSVFFALFS <ins>T</ins> ICFASC--YARN <ins>T</ins> LCRN <ins>F</ins> EDSF <ins>R</ins> PRASEK <ins>E</ins> LG-----	YNSRKREL <ins>R</ins> ANSRGDE <ins>V</ins> LLB <ins>E</ins> TSADHKR-----	126
gi 17535347 ref NP_496123.1	-----DENVQ <ins>Q</ins> IFISLN <ins>S</ins> SVFVALAT <ins>G</ins> ICL <ins>I</ins> KA-----	YKKRQLP <ins>P</ins> ANRSKGNEY <ins>V</ins> ILLEFTTADOKK-----	105
gi 17535587 ref NP_496025.1	-----PFND <ins>C</ins> IACTCL <ins>F</ins> STYAEK <ins>N</ins> TQI <ins>R</ins> R <ins>I</ins> SHMSFM <ins>P</ins> PKNG <ins>S</ins> L <ins>P</ins> RL <ins>R</ins> SID-----	FESIN <ins>Q</ins> QTNRGNAIR <ins>S</ins> YVQVQ <ins>E</ins> ITP-----	115
gi 72000000 ref NP_506771.2	-----DDDEGS--IMFKVAGALFANG <ins>G</ins> IFVG <ins>I</ins> FV <ins>C</ins> ICHIRRA-----	YRSS-ATKNGNRRYL <ins>V</ins> ONT <ins>V</ins> KAQLD <ins>T</ins> NS-----	83
gi 32564384 ref NP_497162.2	-----MNPP--FPNR <ins>F</ins> ARFVR <ins>S</ins> VE--NHDESEK <ins>P</ins> <ins>L</ins> I <ins>I</ins> VFLMCALFIN <ins>G</ins> VLS <ins>I</ins> IFV <ins>C</ins> ICL <ins>R</ins> R-----	YR <ins>S</ins> -ATKNGNRRYL <ins>V</ins> ONT <ins>V</ins> KAQLD <ins>T</ins> NS-----	654
gi 17568305 ref NP_509836.1	-----GTFERKIS <ins>Y</ins> QVVL <ins>E</ins> MM <ins>M</ins> LC--RV <ins>G</ins> N--VALE <ins>V</ins> HVADE <ins>P</ins> LN <ins>K</ins> FLA <ins>S</ins> N <ins>K</ins> -----	Y <ins>S</ins> ILH <ins>S</ins> TEV <ins>E</ins> EH <ins>E</ins> QLS <ins>F</ins> YIRNATT <ins>A</ins> S <ins>G</ins> NC <ins>T</ins> CVLENQ <ins>A</ins> SEN <ins>E</ins> LS <ins>I</ins> L <ins>K</ins> V-----	667
gi 17568311 ref NP_509835.1	-----GTFD <ins>R</ins> GLI <ins>I</ins> YNN <ins>V</ins> F <ins>T</ins> EGMDLKCSSIRKGN <ins>A</ins> ITVN <ins>K</ins> L <ins>K</ins> I <ins>G</ins> EGF <ins>E</ins> VRPHHEKS-----	Y <ins>S</ins> ILH <ins>S</ins> TEV <ins>E</ins> EH <ins>E</ins> QLS <ins>F</ins> YIRNATT <ins>A</ins> S <ins>G</ins> NC <ins>T</ins> CVLENQ <ins>A</ins> SEN <ins>E</ins> LS <ins>I</ins> L <ins>K</ins> V-----	675
gi 17535101 ref NP_496017.1	-----DTEFEKGF <ins>I</ins> Y <ins>N</ins> V <ins>F</ins> LA <ins>K</ins> R <ins>T</ins> D <ins>F</ins> KC <ins>I</ins> NV <ins>V</ins> KKKKT--STKF <ins>I</ins> <ins>V</ins> SN <ins>A</ins> N <ins>K</ins> T <ins>F</ins> HEIEKSVNAT <ins>K</ins> TEPS-----	Y <ins>S</ins> ILH <ins>S</ins> TEV <ins>E</ins> EH <ins>E</ins> QLS <ins>F</ins> YIRNATT <ins>A</ins> S <ins>G</ins> NC <ins>T</ins> CVLENQ <ins>A</ins> SEN <ins>E</ins> LS <ins>I</ins> L <ins>K</ins> V-----	92
gi 25146689 ref NP_741035.1	-----DPAEK-----	Y <ins>S</ins> ILH <ins>S</ins> TEV <ins>E</ins> EH <ins>E</ins> QLS <ins>F</ins> YIRNATT <ins>A</ins> S <ins>G</ins> NC <ins>T</ins> CVLENQ <ins>A</ins> SEN <ins>E</ins> LS <ins>I</ins> L <ins>K</ins> V-----	91
gi 17535589 ref NP_496022.1	-----GEGSVFKL <ins>R</ins> RT <ins>V</ins> V <ins>F</ins> V <ins>Y</ins> GL <ins>L</ins> V <ins>L</ins> AFIA-----	Y <ins>S</ins> ILH <ins>S</ins> TEV <ins>E</ins> EH <ins>E</ins> QLS <ins>F</ins> YIRNATT <ins>A</ins> S <ins>G</ins> NC <ins>T</ins> CVLENQ <ins>A</ins> SEN <ins>E</ins> LS <ins>I</ins> L <ins>K</ins> V-----	36
gi 17563712 ref NP_506728.1	-----MAMDLV <ins>V</ins> L <ins>I</ins> C <ins>I</ins> FI <ins>V</ins> AV <ins>I</ins> FAC <ins>A</ins> LQK-----	Y <ins>S</ins> ILH <ins>S</ins> TEV <ins>E</ins> EH <ins>E</ins> QLS <ins>F</ins> YIRNATT <ins>A</ins> S <ins>G</ins> NC <ins>T</ins> CVLENQ <ins>A</ins> SEN <ins>E</ins> LS <ins>I</ins> L <ins>K</ins> V-----	654
gi 156104876 ref NP_002010.2	-----KMPTEGED <ins>L</ins> L <ins>S</ins> CTV <ins>N</ins> KFL <ins>V</ins> RD <ins>I</ins> WILL <ins>R</ins> TV <ins>N</ins> R <ins>I</ins> M <ins>Y</ins> S <ins>I</ins> IKQKMAIT <ins>K</ins> -----	Y <ins>S</ins> ILH <ins>S</ins> TEV <ins>E</ins> EH <ins>E</ins> QLS <ins>F</ins> YIRNATT <ins>A</ins> S <ins>G</ins> NC <ins>T</ins> CVLENQ <ins>A</ins> SEN <ins>E</ins> LS <ins>I</ins> L <ins>K</ins> V-----	705
gi 114649218 ref XP_509605.2	-----EHS <ins>I</ins> T <ins>L</ins> L <ins>T</ins> IM <ins>V</ins> S <ins>L</ins> DSGT <ins>V</ins> ACR <ins>A</ins> RV <ins>N</ins> V <ins>I</ins> Y <ins>G</ins> EE <ins>I</ins> ILQKKE <ins>I</ins> IT <ins>R</ins> D <ins>O</ins> E <ins>A</ins> P <ins>Y</ins> LL <ins>R</ins> N <ins>L</ins> SD <ins>H</ins> T <ins>V</ins> AI-----	Y <ins>S</ins> ILH <ins>S</ins> TEV <ins>E</ins> EH <ins>E</ins> QLS <ins>F</ins> YIRNATT <ins>A</ins> S <ins>G</ins> NC <ins>T</ins> CVLENQ <ins>A</ins> SEN <ins>E</ins> LS <ins>I</ins> L <ins>K</ins> V-----	705
gi 73993482 ref XP_534520.2	-----KMPTEGED <ins>L</ins> L <ins>S</ins> CTV <ins>N</ins> KFL <ins>V</ins> RD <ins>I</ins> WILL <ins>R</ins> TV <ins>N</ins> R <ins>I</ins> M <ins>Y</ins> S <ins>I</ins> IKQKMAIT <ins>K</ins> -----	Y <ins>S</ins> ILH <ins>S</ins> TEV <ins>E</ins> EH <ins>E</ins> QLS <ins>F</ins> YIRNATT <ins>A</ins> S <ins>G</ins> NC <ins>T</ins> CVLENQ <ins>A</ins> SEN <ins>E</ins> LS <ins>I</ins> L <ins>K</ins> V-----	705
gi 194671875 ref XP_001249769.2	-----KMPAEGED <ins>L</ins> L <ins>S</ins> CTV <ins>N</ins> KFL <ins>V</ins> RD <ins>I</ins> WILL <ins>R</ins> TV <ins>N</ins> NN <ins>Q</ins> TT <ins>I</ins> QOS <ins>I</ins> IKQKT <ins>P</ins> VTK-----	Y <ins>S</ins> ILH <ins>S</ins> TEV <ins>E</ins> EH <ins>E</ins> QLS <ins>F</ins> YIRNATT <ins>A</ins> S <ins>G</ins> NC <ins>T</ins> CVLENQ <ins>A</ins> SEN <ins>E</ins> LS <ins>I</ins> L <ins>K</ins> V-----	728
gi 34328180 ref NP_034358.2	-----KMPAEGED <ins>L</ins> L <ins>S</ins> CTV <ins>N</ins> KFL <ins>V</ins> RD <ins>I</ins> WILL <ins>R</ins> TV <ins>N</ins> NN <ins>Q</ins> TT <ins>I</ins> QOS <ins>I</ins> IKQKT <ins>P</ins> VTK-----	Y <ins>S</ins> ILH <ins>S</ins> TEV <ins>E</ins> EH <ins>E</ins> QLS <ins>F</ins> YIRNATT <ins>A</ins> S <ins>G</ins> NC <ins>T</ins> CVLENQ <ins>A</ins> SEN <ins>E</ins> LS <ins>I</ins> L <ins>K</ins> V-----	706
gi 11276093 ref NP_062179.1	-----D <ins>Y</ins> IT <ins>L</ins> L <ins>V</ins> IK <ins>N</ins> AS <ins>L</ins> EDSG <ins>T</ins> YACR <ins>A</ins> RV <ins>N</ins> I <ins>Y</ins> GE <ins>I</ins> ILQKKE <ins>I</ins> IT <ins>R</ins> D <ins>O</ins> E <ins>A</ins> P <ins>Y</ins> LL <ins>R</ins> N <ins>L</ins> SD <ins>H</ins> T <ins>V</ins> AI-----	Y <ins>S</ins> ILH <ins>S</ins> TEV <ins>E</ins> EH <ins>E</ins> QLS <ins>F</ins> YIRNATT <ins>A</ins> S <ins>G</ins> NC <ins>T</ins> CVLENQ <ins>A</ins> SEN <ins>E</ins> LS <ins>I</ins> L <ins>K</ins> V-----	705
gi 45383624 ref NP_989583.1	-----KVP <ins>I</ins> E <ins>G</ins> EN <ins>V</ins> L <ins>S</ins> C <ins>A</ins> N <ins>K</ins> F <ins>M</ins> Y <ins>K</ins> D <ins>I</ins> SW <ins>I</ins> L <ins>P</ins> RT <ins>V</ins> T <ins>N</ins> Q <ins>I</ins> -----	Y <ins>S</ins> ILH <ins>S</ins> TEV <ins>E</ins> EH <ins>E</ins> QLS <ins>F</ins> YIRNATT <ins>A</ins> S <ins>G</ins> NC <ins>T</ins> CVLENQ <ins>A</ins> SEN <ins>E</ins> LS <ins>I</ins> L <ins>K</ins> V-----	695
gi 72535148 ref NP_001014829.2	-----E <ins>E</ins> P <ins>R</ins> GG <ins>D</ins> L <ins>R</ins> LC <ins>I</ins> AN <ins>R</ins> H <ins>L</ins> S <ins>D</ins> L <ins>W</ins> S <ins>S</ins> --R <ins>I</ins> T <ins>S</ins> Q <ins>I</ins> T <ins>V</ins> W <ins>D</ins> E <ins>A</ins> -----	Y <ins>S</ins> ILH <ins>S</ins> TEV <ins>E</ins> EH <ins>E</ins> QLS <ins>F</ins> YIRNATT <ins>A</ins> S <ins>G</ins> NC <ins>T</ins> CVLENQ <ins>A</ins> SEN <ins>E</ins> LS <ins>I</ins> L <ins>K</ins> V-----	694
610.....620.....630.....640.....650.....660.....670.....680.....690.....700.....710.....720.....730.....740.....750		

gi 17509593 ref NP_492969.1	-----ITSL <ins>P</ins> ISNK <ins>V</ins> D <ins>L</ins> DR <ins>I</ins> RI <ins>T</ins> -----	73	
gi 193203328 ref NP_492970.2	-----VPT <ins>S</ins> N <ins>L</ins> V <ins>N</ins> L <ins>I</ins> DEEP <ins>P</ins> SS <ins>S</ins> LT-----	49	
gi 72001273 ref NP_503375.2	-----SVREN <ins>E</ins> SL <ins>L</ins> Q <ins>A</ins> NEE <ins>N</ins> V <ins>P</ins> IG <ins>L</ins> -----	76	
gi 17535345 ref NP_496130.1	-----RNS <ins>E</ins> N <ins>I</ins> V <ins>P</ins> PE <ins>T</ins> TP <ins>P</ins> IT <ins>S</ins> CE-----	146	
gi 17535347 ref NP_496123.1	-----RYS <ins>N</ins> N <ins>I</ins> V <ins>P</ins> PE <ins>T</ins> TP <ins>P</ins> IT <ins>S</ins> CE-----	138	
gi 17535587 ref NP_496025.1	-----SS <ins>S</ins> IL <ins>A</ins> V <ins>Q</ins> N <ins>E</ins> NT <ins>G</ins> IES <ins>I</ins> N <ins>K</ins> PE-----	135	
gi 72000000 ref NP_506771.2	-----SS <ins>S</ins> IL <ins>P</ins> V <ins>D</ins> K <ins>E</ins> II <ins>I</ins> ET <ins>S</ins> INE <ins>E</ins> TP-----	104	
gi 32564384 ref NP_497162.2	-----E <ins>P</ins> I <ins>I</ins> A <ins>P</ins> Y <ins>V</ins> K <ins>T</ins> G <ins>F</ins> S <ins>A</ins> P <ins>T</ins> G <ins>S</ins> -----	782	
gi 17568305 ref NP_509836.1	-----K <ins>A</ins> I <ins>S</ins> K <ins>P</ins> S <ins>I</ins> T <ins>G</ins> GS <ins>N</ins> NA <ins>V</ins> IV <ins>V</ins> D <ins>D</ins> Q <ins>F</ins> E <ins>I</ins> N <ins>C</ins> M <ins>G</ins> T <ins>P</ins> P <ins>V</ins> Y <ins>Q</ins> W <ins>F</ins> K <ins>D</ins> G <ins>N</ins> P <ins>Y</ins> -----	816	
gi 17568311 ref NP_509835.1	-----E <ins>K</ins> V <ins>S</ins> P <ins>P</ins> F <ins>L</ins> NN <ins>N</ins> N <ins>S</ins> R <ins>S</ins> I <ins>I</ins> S <ins>A</ins> N <ins>G</ins> Q <ins>M</ins> D <ins>I</ins> N <ins>C</ins> K <ins>V</ins> N <ins>G</ins> V <ins>P</ins> T <ins>D</ins> -----	822	
gi 17535101 ref NP_496017.1	-----D <ins>Y</ins> IT <ins>L</ins> L <ins>V</ins> IK <ins>N</ins> AS <ins>L</ins> EDSG <ins>T</ins> YACR <ins>A</ins> RV <ins>N</ins> I <ins>Y</ins> GE <ins>I</ins> ILQKKE <ins>I</ins> IT <ins>R</ins> D <ins>O</ins> E <ins>A</ins> P <ins>Y</ins> LL <ins>R</ins> N <ins>L</ins> SD <ins>H</ins> T <ins>V</ins> AI-----	118	
gi 25146689 ref NP_741035.1	-----N <ins>K</ins> S <ins>N</ins> I <ins>D</ins> P <ins>L</ins> LL <ins>D</ins> V <ins>T</ins> S <ins>V</ins> N <ins>E</ins> E <ins>T</ins> TP <ins>V</ins> K <ins>R</ins> -----	117	
gi 17535589 ref NP_496022.1	-----A <ins>L</ins> R <ins>G</ins> K <ins>R</ins> G <ins>S</ins> I <ins>T</ins> B <ins>Q</ins> I <ins>E</ins> L <ins>T</ins> TP <ins>V</ins> INK <ins>D</ins> -----	58	
gi 17563712 ref NP_506728.1	-----G <ins>I</ins> L <ins>G</ins> P <ins>G</ins> S <ins>S</ins> T <ins>L</ins> FI <ins>E</ins> R <ins>V</ins> I <ins>E</ins> E <ins>D</ins> G <ins>V</ins> I <ins>H</ins> CK <ins>A</ins> I <ins>N</ins> Q <ins>K</ins> G <ins>V</ins> E <ins>S</ins> SAY <ins>I</ins> LV <ins>G</ins> T <ins>Q</ins> S <ins>D</ins> K <ins>N</ins> E <ins>L</ins> IT <ins>I</ins> CT <ins>C</ins> V <ins>A</ins> A <ins>T</ins> LF <ins>W</ins> L <ins>L</ins> TL <ins>F</ins> IR <ins>K</ins> MR <ins>S</ins> -----	792	
gi 156104876 ref NP_002010.2	-----G <ins>I</ins> L <ins>G</ins> P <ins>G</ins> S <ins>S</ins> T <ins>L</ins> FI <ins>E</ins> R <ins>V</ins> I <ins>E</ins> E <ins>D</ins> G <ins>V</ins> I <ins>H</ins> CK <ins>A</ins> I <ins>N</ins> Q <ins>K</ins> G <ins>V</ins> E <ins>S</ins> SAY <ins>I</ins> LV <ins>G</ins> T <ins>Q</ins> S <ins>D</ins> K <ins>N</ins> E <ins>L</ins> IT <ins>I</ins> CT <ins>C</ins> V <ins>A</ins> A <ins>T</ins> LF <ins>W</ins> L <ins>L</ins> TL <ins>F</ins> IR <ins>K</ins> MR <ins>S</ins> -----	792	
gi 114649218 ref XP_509605.2	-----G <ins>I</ins> L <ins>G</ins> P <ins>G</ins> S <ins>S</ins> T <ins>L</ins> FI <ins>E</ins> R <ins>V</ins> I <ins>E</ins> E <ins>D</ins> G <ins>V</ins> I <ins>H</ins> CK <ins>A</ins> I <ins>N</ins> Q <ins>K</ins> G <ins>V</ins> E <ins>S</ins> SAY <ins>I</ins> LV <ins>G</ins> T <ins>Q</ins> S <ins>D</ins> K <ins>N</ins> E <ins>L</ins> IT <ins>I</ins> CT <ins>C</ins> V <ins>A</ins> A <ins>T</ins> LF <ins>W</ins> L <ins>L</ins> TL <ins>F</ins> IR <ins>K</ins> MR <ins>S</ins> -----	792	
gi 73993482 ref XP_534520.2	-----G <ins>I</ins> L <ins>G</ins> P <ins>G</ins> S <ins>S</ins> T <ins>L</ins> FI <ins>E</ins> R <ins>V</ins> I <ins>E</ins> E <ins>D</ins> G <ins>V</ins> I <ins>H</ins> CK <ins>A</ins> I <ins>N</ins> Q <ins>K</ins> G <ins>V</ins> E <ins>S</ins> SAY <ins>I</ins> LV <ins>G</ins> T <ins>Q</ins> S <ins>D</ins> K <ins>N</ins> E <ins>L</ins> IT <ins>I</ins> CT <ins>C</ins> V <ins>A</ins> A <ins>T</ins> LF <ins>W</ins> L <ins>L</ins> TL <ins>F</ins> IR <ins>K</ins> MR <ins>S</ins> -----	792	
gi 194671875 ref XP_001249769.2	-----G <ins>I</ins> L <ins>G</ins> P <ins>G</ins> S <ins>S</ins> T <ins>L</ins> FI <ins>E</ins> R <ins>V</ins> I <ins>E</ins> E <ins>D</ins> G <ins>V</ins> I <ins>H</ins> CK <ins>A</ins> I <ins>N</ins> Q <ins>K</ins> G <ins>V</ins> E <ins>S</ins> SAY <ins>I</ins> LV <ins>G</ins> T <ins>Q</ins> S <ins>D</ins> K <ins>N</ins> E <ins>L</ins> IT <ins>I</ins> CT <ins>C</ins> V <ins>A</ins> A <ins>T</ins> LF <ins>W</ins> L <ins>L</ins> TL <ins>F</ins> IR <ins>K</ins> MR <ins>S</ins> -----	815	
gi 34328180 ref NP_034358.2	-----G <ins>I</ins> L <ins>G</ins> P <ins>G</ins> S <ins>S</ins> T <ins>L</ins> FI <ins>E</ins> R <ins>V</ins> I <ins>E</ins> E <ins>D</ins> G <ins>V</ins> I <ins>H</ins> CR <ins>A</ins> T <ins>N</ins> Q <ins>K</ins> G <ins>V</ins> E <ins>S</ins> SAY <ins>I</ins> LV <ins>G</ins> T <ins>Q</ins> S <ins>D</ins> K <ins>N</ins> E <ins>L</ins> IT <ins>I</ins> CT <ins>C</ins> V <ins>A</ins> A <ins>T</ins> LF <ins>W</ins> L <ins>L</ins> TL <ins>F</ins> IR <ins>K</ins> MR <ins>S</ins> -----	793	
gi 11276093 ref NP_062179.1	-----G <ins>I</ins> L <ins>G</ins> P <ins>G</ins> S <ins>S</ins> T <ins>L</ins> FI <ins>E</ins> R <ins>V</ins> I <ins>E</ins> E <ins>D</ins> G <ins>V</ins> I <ins>H</ins> CR <ins>A</ins> T <ins>N</ins> Q <ins>K</ins> G <ins>V</ins> E <ins>S</ins> SAY <ins>I</ins> LV <ins>G</ins> T <ins>Q</ins> S <ins>D</ins> K <ins>N</ins> E <ins>L</ins> IT <ins>I</ins> CT <ins>C</ins> V <ins>A</ins> A <ins>T</ins> LF <ins>W</ins> L <ins>L</ins> TL <ins>F</ins> IR <ins>K</ins> MR <ins>S</ins> -----	792	
gi 45383624 ref NP_989583.1	-----G <ins>I</ins> L <ins>G</ins> P <ins>G</ins> S <ins>S</ins> T <ins>L</ins> FI <ins>E</ins> R <ins>V</ins> I <ins>E</ins> E <ins>D</ins> G <ins>V</ins> I <ins>H</ins> QC <ins>I</ins> A <ins>T</ins> N <ins>L</ins> K <ins>G</ins> V <ins>E</ins> S <ins>T</ins> AY <ins>I</ins> LV <ins>G</ins> T <ins>Q</ins> S <ins>D</ins> K <ins>N</ins> E <ins>L</ins> IT <ins>I</ins> CT <ins>C</ins> V <ins>A</ins> A <ins>T</ins> LF <ins>W</ins> L <ins>L</ins> TL <ins>F</ins> IR <ins>K</ins> MR <ins>P</ins> Y <ins>S</ins> ET <ins>K</ins> N-----	784	
gi 72535148 ref NP_001014829.2	-----G <ins>I</ins> M <ins>L</ins> P <ins>E</ins> E <ins>G</ins> T <ins>L</ins> H <ins>I</ins> D <ins>R</ins> IT <ins>V</ins> E <ins>D</ins> Q <ins>G</ins> F <ins>I</ins> T <ins>C</ins> Q <ins>A</ins> T <ins>N</ins> Q <ins>R</ins> G <ins>M</ins> ESS <ins>A</ins> Y <ins>I</ins> W <ins>V</ins> Q <ins>N</ins> S <ins>E</ins> SL <ins>I</ins> E <ins>P</ins> T <ins>L</ins> A <ins>C</ins> T <ins>C</ins> V <ins>A</ins> A <ins>T</ins> LF <ins>W</ins> L <ins>L</ins> TL <ins>F</ins> IR <ins>K</ins> HP <ins>N</ins> -----	782	
760.....770.....780.....790.....800.....810.....820.....830.....840.....850.....860.....870.....880.....890.....900		

gi 17509593 ref NP_492969.1	-----ESELISSETIKSLIGDNHLEIDPENLKIESTENVIGSGFFGTIVYRAELRRE-----RRNSNFMIVAVKEPSNIHNIROKKILHEELNVCMGMEKHPNILSILVG-VVTQRNV-----MIVTEYVEDGDLKKFLRKCK--FDKDS--	201
gi 193203328 ref NP_492970.2	-----PFDVKALESVNHLEIDPKNLTSNEDSIGSGFFGVVYRAKLRLRKPEQEVSSHSIYFVDVAKESSNNHLDISKLLVIEELVMCGMKHPNILSILVG-VVIERNV-----MLIMEYVEGGDLKKFLRKKS--VRYQY--	182
gi 72001273 ref NP_503375.2	-----ETEPINAIKKNLKEDPERFEIDVNKSFSYNLSPLGNGYVCKVFERMHKKQNG-LDSENSLEAVAKRALRPDEPSQGQLMCEELNVMCVCVGKHPNILALRIL-WIRTNEI-----LIVSFVVKGDLVEYLARRRNFNDKI--	210
gi 17535345 ref NP_496130.1	-----KLELAPINEKIMYLHYAAEVINNEEDLDISKGRPLGSGEFGIIIRKGFLRSKNSKN-EKEESRLEVAKPLNEYNQICQELINYDELKVCMCAVGKHPNILALVGGITFGERK-----MIVSEVFENGDLLSFLRDNRNIFFTNDQ--	283
gi 17535347 ref NP_496123.1	-----ECPPLEKLPAINDRKLHYAAEVINNEEDLDISKGRPLGSGEFGIIIRKGFLRSKNSKN-EKEESRLEVAKPLNEYNQICQELINYDELKVCMCAVGKHPNILALVGGITFGERK-----MIVSEVFENGDLLSFLRDNRNIFFTNDQ--	279
gi 17535587 ref NP_496025.1	-----TOPINERAELKLPYNPAPEIQPNNDLIFNKRPLGKSGFEGIILNKGLLTLRICKT--NEVVQVNVAVKKMVDPTIDKQDKLILYDEIKLMAIGKHPNVLALVGAITKKEKVGSCREYNAQSPEIENGDLRSVLRNSPVPQDEI--	273
gi 72000000 ref NP_506771.2	-----IIPDQPLNERAEYLPLYNPAPEIHSHEHLDVFEKQ-FGQGNGFKVNKLAKLKLINQKT-CEVVRMDVVAVKPAPSDTIDKSKDILIDDEIKLMAIGKHPNVLALVGAITKKEKVGSCREYNAQSPEIENGDLRSVLRNSPVPQDEI--	246
gi 32564384 ref NP_497162.2	-----FLPNCKNQFSNFI-FEFHKDSL--ILE-PIGSCHFGVVRRCIL-----KGTCTTVVAKSSSYRSSIGFOQVIVBELLKMSAJGKHPNVLALVGAITKNEIHRGEL--VILMEYIDGGNLRFDLCORRNVIIDEI--	905
gi 17568305 ref NP_509836.1	-----PLPEEMKDLPLWEERIYLPYNNDWEIDPVLN-ILN-PIGSCHFGVVKKGLGMAYPKSIEEKTRLPVAVKSSSTNPVFNELQKMMABELKVMCAIPKPNPVLAIGAVIKNMRQQL--YIVTEFIDGGNLRFDLCORRNVIIDEI--	959
gi 17568311 ref NP_509835.1	-----TVSEKINNLPVVEREIDYLVNEDWEIDLEN-ILE-PIGSCHFGVVKKGLGMAYPKSIEEKTRLPVAVKSSSTNPVFNELQKMMABELKVMCAIPKPNPVLAIGAVIKNMRQQL--FIVTEFIDGGNLRFDLCORRNVIIDEI--	964
gi 17535101 ref NP_496017.1	-----PLNDKLWLPYVKQWEIASNLN-NKS-ILGSGQFNGVVRKGKILMASPKNEEEKKMRLVAVAKSAANCYDISOTSMALAEELRLMCISGRFPNVLAVALGAVTSELRKGRLL-----LIVTEYIDCGDIRKYLIDBHRNFQDHL--	252
gi 25146689 ref NP_741035.1	-----PINERIENLEFDPRFEIDQAKL-EISEDKLGSGFFGEVCYGLLSMRITSNTEDILQQLSVAVQKSNDPQGENQEMKIEDETKLMCAIGRNPVLIAIAGAVTANSGSARN--LLIVEFVFCGDLLKFLEEKKSIFKDEL--	252
gi 17535589 ref NP_496022.1	-----DMCIRDNISGENIPVIFIDPSNLK-FSS-VLENGYFCKIRRGLTNINV-AEAEKNSNKLVDLVLVRK-PKHNIEKEMIENEPLITRLRIGRHPNVLAIGVYSP--MFGR--VVVYESVELGNLQHVLLKTTKNNFELVG--	187
gi 17563712 ref NP_506728.1	------MISNEVOLDE-SLKLNLYLIIKEKEIHYYSRIRLGLKMKMSGAHKNSPTLSIKCALLRNDITHOKMIQDELVLSLSLRSHSCILALVGVYREPPLM-----LIVESHAEEHGRDLQFLIDRKLNFNNQNL--	124
gi 156104876 ref NP_002010.2	-----DYLSTIMDPDEVPLDQCCRPLPYDASKWEFARERLKLKGSLGRGAFGKVVQASAFGIKKSPCRTVAVKMLKEGATASEYKALMTELKILTHIGHHLNVVNLGACTKQGGP-----LMVIVBYCKVGNLSNYLKSKRDLFFLNKDA--	934
gi 114649218 ref XP_509605.2	-----DYLSSIIMDPDEVPLDQCCRPLPYDASKWEFARERLKLKGSLGRGAFGKVVQASAFGIKKSPCRTVAVKMLKEGATASEYKALMTELKILTHIGHHLNVVNLGACTKQGGP-----LMVIVBYCKVGNLSNYLKSKRDLFFLNKDA--	934
gi 73993482 ref XP_534520.2	-----DYLSSIIMDPDEVPLDQCCRPLPYDASKWEFARERLKLKGSLGRGAFGKVVQASAFGIKKSPCRTVAVKMLKEGATASEYKALMTELKILTHIGHHLNVVNLGACTKQGGP-----LMVIVBYCKVGNLSNYLKSKRDLFFLNKDA--	934
gi 194671875 ref XP_001249769.2	-----DYLSSIIMDPDEVPLDQCCRPLPYDASKWEFARERLKLKGSLGRGAFGKVVQASAFGIKKSPCRTVAVKMLKEGATASEYKALMTELKILTHIGHHLNVVNLGACTKQGGP-----LMVIVBYCKVGNLSNYLKSKRDLFFLNKDA--	957
gi 34328180 ref NP_034358.2	-----DYLSSIIMDPDEVPLDQCCRPLPYDASKWEFARERLKLKGSLGRGAFGKVVQASAFGIKKSPCRTVAVKMLKEGATASEYKALMTELKILTHIGHHLNVVNLGACTKQGGP-----LMVIVBYCKVGNLSNYLKSKRDLFFLNKDA--	935
gi 11276093 ref NP_062179.1	-----DYLSSIIMDPDEVPLDQCCRPLPYDASKWEFARERLKLKGSLGRGAFGKVVQASAFGIKKSPCRTVAVKMLKEGATASEYKALMTELKILTHIGHHLNVVNLGACTKQGGP-----LMVIVBYCKVGNLSNYLKSKRDLFFLNKDA--	934
gi 45383624 ref NP_989583.1	-----EYLPYIILPGEELPVEHCDRLYDPAKWFPRDLKLEKPLGRGAFGRVMQASAVGTGNASCTTVAVKMLKGDTAPSEKHALTMELKILNHVNVNLGACTKSGGP-----LMVIVBYCKVGNLSNYLKSKRNFSPTKDP--	926
gi 72535148 ref NP_001014829.2	-----EYLPYIILPGEELPVEHCDRLYDPAKWFPRDLKLEKPLGRGAFGRVMQASAVGTGNASCTTVAVKMLKGDTAPSEKHALTMELKILNHVNVNLGACTKSGGP-----LMVIVBYCKVGNLSNYLKSKRNFSPTKDP--	922

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gi 17509593 ref NP_492969.1	-----VVKLDEKS-----LCKADLFSTFQIAQGMQYLERV-----VVERDLALRNVLIKNQGVLKIADFGLARHDKKDYIRT-KT-TDT	275
gi 193203328 ref NP_492970.2	-----LEPDGDA-----LCMADLSSFAFQIAQGMQYLERV-----CVVERDLALRNVLIKNQGVLKIADFGLARHENKEYIRT-R-REVGT	256
gi 72001273 ref NP_503375.2	-----VCVVEDNGRL-----LCPCTDLSLFAFQIAQGMKFLGVNA-----CVVERDLALRNVLKVKRNRVIRIADFGLARHENKEYIRT-KKTDV	285
gi 17535345 ref NP_496130.1	-----WLTETQD-----LLVLDLSSFAFQIAQGMELYLHV-----CVVERDLALRNVLKVKRNRVIRIADFGLARHKNKDYIRT-QVDT	359
gi 17535347 ref NP_496123.1	-----LAFEPEPKPS-----LGLVLDLSSFAFQIAQGMELYLHV-----CVVERDLALRNVLKVKRNRVIRIADFGLARHKNKDYIRT-QVDT	355
gi 17535587 ref NP_496025.1	-----TSRERTTGGQNVA-----EVEFTTITSDLSLFAFQIAQGMELYLHV-----CVVERDLALRNVLKVKRNRVIRIADFGLARHNGDKDYTVKVKY-PET	359
gi 72000000 ref NP_506771.2	-----TSTDRTTGGQMVS-----DIFDELTSDLSLFAFQIAQGMELYLHV-----CVVERDLALRNVLVFKKVKRNRVIRIADFGLARHNGDKDYTVKVKY-PET	354
gi 32564384 ref NP_497162.2	-----HDN-----FDENIPPLIRPDFNLSLTTDLVGIAHQIAQGMELYLHV-----CVVERDLALRNVLVFKKVKRNRVIRIADFGLARHHSKKSYMRQCNPDT	980
gi 17568305 ref NP_509836.1	-----VEDEHVPVDIYLPVNEVKKKIYKFDEKLGETRLVVEDPDLACTSDLLSISLQIAQGMANLADVE-----CVVERDLACRNVLITKTKVIRIADFGLSKHTNKTYYIRTKKK-KDT	1069
gi 17568311 ref NP_509835.1	-----VEKGYIIFLTN-----VRENVPKREVEKEOILLDEFDSLTSDDLLSISLQIAQGMANLADVE-----CVVERDLACRNVLITKTKVIRIADFGLAKKHTDKAYTVRVE-LDT	1064
gi 17535101 ref NP_496017.1	-----IEDKTEPDLT-----IAKRNKTVFKNIDENSDDYVIKESLDSLTSDDLLSISLQIAQGMANLADVE-----MVVERDLALRNVLKKNKTIRIADFGMARTHENKSYIIPQKJDA	360
gi 25146689 ref NP_741035.1	-----VYEKNGYIYLP-----KSIRKTYMFNENEDDVIEEPLKTSDDLLSISLQIAQGMANLADVE-----CVVERDLALRNVLKKNKTIRIADFGLARKYQVDGYVTRITKGVG	354
gi 17535589 ref NP_496022.1	-----VET-----EFSGIDEFCSDLHSISFSAFQIAQGMELYLHV-----VVERFLALARNLIFLKRNRVIRIANGLSKNVN--DVRILDMDT	263
gi 17563712 ref NP_506728.1	-----TCSDGSNQKVYVNFN-----NGEQERISDDDMQALCTLDLLSYGVQIAIAMKFLADSR-----CLERALALRSISFVTRNKTKIRIAGEFLCARLARINARKEYYIM-KPQL	218
gi 156104876 ref NP_002010.2	-----ALHMEPKKEKMEPGLEQGKPKPRLDTSVSSESFASSGFQEDKSLSDVVE-BEDSDGFYKEPIIMEDLISYSFQVARGMELFLSSRK-----CIERDLAARNILLSENNVVKICDFGLARDIYKNPDVVR--KGDT	1059
gi 114649218 ref XP_509605.2	-----gi 114649218 ref XP_509605.2 -----ALHMEPKKEKMEPGLEQGKPKPRLDTSVSSESFASSGFQEDKSLSDVVE-BEDSDGFYKEPIIMEDLISYSFQVARGMELFLSSRK-----CIERDLAARNILLSENNVVKICDFGLARDIYKNPDVVR--KGDT	1059
gi 73993482 ref XP_534520.2	-----ALHMEPKKEKMEPGLEQGKPKPRLDTSVSSESFASSGFQEDKSLSDVVE-BEDSDGFYKEPIIMEDLISYSFQVARGMELFLSSRK-----CIERDLAARNILLSENNVVKICDFGLARDIYKNPDVVR--KGDT	1059
gi 194671875 ref XP_001249769.2	-----ALHMEPKKEKMEPGLEQGKPKPRLDTSVSSESFASSGFQEDKSLSDVVE-BEDSDGFYKEPIIMEDLISYSFQVARGMELFLSSRK-----CIERDLAARNILLSENNVVKICDFGLARDIYKNPDVVR--KGDT	1082
gi 34328180 ref NP_034358.2	-----ALHMEPKKEKMEPGLEQGKPKPRLDTSVSSESFASSGFQEDKSLSDVVE-BEDSDGFYKEPIIMEDLISYSFQVARGMELFLSSRK-----CIERDLAARNILLSENNVVKICDFGLARDIYKNPDVVR--KGDT	1059
gi 11276093 ref NP_062179.1	-----ALHMEPKKEKMEPGLEQGKPKPRLDTSVSSESFASSGFQEDKSLSDVVE-BEDSDGFYKEPIIMEDLISYSFQVARGMELFLSSRK-----CIERDLAARNILLSENNVVKICDFGLARDIYKNPDVVR--KGDT	1059
gi 45383624 ref NP_989583.1	-----SLQGELMKDKKGIEPVEGKPKRLTSVSSESFASSGFQEDKSLDAEEDBEDAAELYKLPL-----CIERDLAARNILLSENNVVKICDFGLARDIYKNPDVVR--KGDA	1052
gi 72535148 ref NP_001014829.2	-----VNKEEEGVMKEGCKGRLTSVSSESFASSGFSEER-GEISESDYCLSELSDPLLLEDPLISYSFQVARGMELFLSSRK-----CIERDLAARNILLSENNVVKICDFGLARDIYKNPDVVR--NGDA	1040

.....1060.....1070.....1080.....1090.....1100.....1110.....1120.....1130.....1140.....1150.....1160.....1170.....1180.....1190.....1200



gi|17509593|ref|NP_492969.1| 397
 gi|193203328|ref|NP_492970.2| 396
 gi|72001273|ref|NP_503375.2| 421
 gi|17535345|ref|NP_496130.1| 501
 gi|17535347|ref|NP_496123.1| 497
 gi|17535587|ref|NP_496025.1| 473
 gi|72000000|ref|NP_506771.2| 480
 gi|32564384|ref|NP_497162.2| 1083
 gi|17568305|ref|NP_509836.1| 1204
 gi|17568311|ref|NP_509835.1| 1199
 gi|17535101|ref|NP_496017.1| 495
 gi|25146689|ref|NP_741035.1| 484
 gi|17535589|ref|NP_496022.1| 388
 gi|17563712|ref|NP_506728.1| 349
 gi|156104876|ref|NP_002010.2| 1195
 gi|114649218|ref|XP_509605.2| 1195
 gi|73993482|ref|XP_534520.2| 1195
 gi|194671875|ref|XP_001249769.2| 1218
 gi|34328180|ref|NP_034358.2| 1195
 gi|11276093|ref|NP_062179.1| 1195
 gi|45383624|ref|NP_989583.1| 1184
 gi|72535148|ref|NP_001014829.2| 1170
1210.....1220.....1230.....1240.....1250.....1260.....1270.....1280.....1290.....1300.....1310.....1320.....1330.....1340.....1350



gi|17509593|ref|NP_492969.1| 397
 gi|193203328|ref|NP_492970.2| 396
 gi|72001273|ref|NP_503375.2| 421
 gi|17535345|ref|NP_496130.1| 502
 gi|17535347|ref|NP_496123.1| 502
 gi|17535587|ref|NP_496025.1| 473
 gi|72000000|ref|NP_506771.2| 480
 gi|32564384|ref|NP_497162.2| 1083
 gi|17568305|ref|NP_509836.1| 1199
 gi|17568311|ref|NP_509835.1| 1199
 gi|17535101|ref|NP_496017.1| 495
 gi|25146689|ref|NP_741035.1| 484
 gi|17535589|ref|NP_496022.1| 388
 gi|17563712|ref|NP_506728.1| 349
 gi|156104876|ref|NP_002010.2| 1338
 gi|114649218|ref|XP_509605.2| 1338
 gi|73993482|ref|XP_534520.2| 1337
 gi|194671875|ref|XP_001249769.2| 1359
 gi|34328180|ref|NP_034358.2| 1333
 gi|11276093|ref|NP_062179.1| 1336
 gi|45383624|ref|NP_989583.1| 1327
 gi|72535148|ref|NP_001014829.2| 1272
1360.....1370.....1380.....1390.....1400.....1410.....1420.....1430.....1440.....1450.....1460.....1470.....1480.....1490.....
 S-----S-----S-----S-----S-----
 NVFQKSPKKQKEERVLIVESHA-----
 EDISAPKFNSGSSDDVRYVNAFKFMSLERIKTFEELLNPATSMFDYYQGDSSLASPMMLKRTWID-SKPKA
 EDISAPKFNSGSSDDVRYVNAFKFMSLERIKTFEELLNPATSMFDYYQGDSSLASPMMLKRTWID-SKPKA
 EDISAPKFNSGSSDDVRYVNAFKFMSLERIKTFEELSPNTTSIFDDYQGDSSLASPMMLKRTWID-SKPKA
 EDISAPKFNSGSSDDVRYVNAFKFMSLERIKTFEELSPNTTSIFDDYQGDSSLASPMMLKRTWID-SKPKA
 DGFADPHFHSSGSSDDVRYVNAFKFMSLERIKTFEELSPNTSMFDYYQGDSSLASPMMLKRTWID-SKPKA
 EKFPVPSPNCRSTERARYINTFKIKPPORIKTFEELPLKEKLVFN
 RDPSQKALGNSE-----YISPGKIKAMSTFEDLHKIPEPD