

	10	20	30	40	50	60	
1	MVEEENIRVVR	CGGSELNFRRAVF	SADSKYIFCV	SGDFVKVYSTV	TEECVHILH	GHRNLV	Pan_trogl
1	MVEEENIRVVR	CGGSELNFRRAVF	SADSKYIFCV	SGDFVKVYSTV	TEECVHILH	GHRNLV	Homo_sapie
1	MVEEEGIRVVR	CGGSELNFRRAVF	SADSKYIFCV	SGDFIKVYSTA	TEECVHILQ	GHRNLV	Bos_taurus
1	MAEEGTVRVVR	CGGSELNLRRAEF	SADSKYIFYV	SGDFVKVHSTA	TEECVHVLQ	GHRNLV	Canis_fami
1	MVEEG.VRVVR	CGGSRLNFRRAVF	SVDSKYIFCV	SGDFVKVYSTT	TEECVHILH	GHTDLV	Mus_muscul
1	MVEER.VRVVR	CGGSRLNFRRAVF	SVDSKYIFCV	SGDFIKVYSTA	TEECVHILR	GKHVV	Rattus_nor
1	MVAPAAALRVVR	CGGRAMHGARA	SVGARFLLCA	SGDFVKMYSVA	TEELVRLLR	GHSDLV	Gallus_gal
1	MVSQCQIRVVR	SGGSKLDYRRS	VFSADGKYL	ICVSGDFIKVYST	TEECIHALQ	GHRKLV	Xenopus_la
1	MVEKTDIRVVR	CGGSKINFRPP	TI SHDSRFV	LCVSGDSVKVYST	TEEWLHNLQ	GHNQV	Danio_reri
	Mvee--irVVRcGGs-	lnfrravf	Sadskyifcv	SGDfvKvySt-	TEEcvhil-	GHrnlV	consensus

	70	80	90	100	110	120	
61	TGIQLNPN	NHLQLYSCSL	DGTIKLWDY	IDGILIKTFIVG	CKLHALFTLA	QAEDSVFVIVN	Pan_trogl
61	TGIQLNPN	NHLQLYSCSL	DGTIKLWDY	IDGILIKTFIVG	CKLHALFTLA	QAEDSVFVIVN	Homo_sapie
61	TGIQLNPN	NHLQLYSCS	VDGTIKLWDY	IDGILIKTFRVG	CELHALFTLS	SHAEDSVFTIN	Bos_taurus
61	TGIQLNPN	NHLQLYSCS	F DGTIKLWDY	IDGILIKTFIVG	HKLHALFTLCA	QAEDSVFVIIN	Canis_fami
60	SGILVNP	SNHLQLYSCS	F DGTIKLWDY	VDGILIKTFTIG	PKLHAF	FIPLHAEDSVFTIS	Mus_muscul
60	SGILINP	NHLQLYSCS	F DGTIKLWDY	LDGILIKTFTVIG	PKLHALF	IPAHAEDEVFTIN	Rattus_nor
61	TGVQLAP	HNRLQLYSSSL	DGTIKLWDF	TDGILIKTFTVIG	YQLLALYALPSS	SEDSVFVIIP	Gallus_gal
61	TGIELNP	KNHLQLYSCSL	DGTIKLWDF	TDGILIKTFLIG	CKFLSLYTSAT	.DDLVFVAVTL	Xenopus_la
61	TGIAFNPA	NQLQVYSCS	ADGTVKLWDF	IDGILIKTFVIG	YPLYSLYVSEKH	EGVIFLIVS	Danio_reri
	tGiqlnPnNhLQlYScS	lDGTiKLWDy	iDGILIKTFivG-	klhalftla-	aedsvFviin		consensus

	130	140	150	160	170	180	
121	KE.KP..	DIFQLVSVKLPKSS	SQEVEAKELSFVLDYINQ	SPKCIAFGNEGV	VYVAAVRE	EFY	Pan_trogl
121	KE.KP..	DIFQLVSVKLPKSS	SQEVEAKELSFVLDYINQ	SPKCIAFGNEGV	VYVAAVRE	EFY	Homo_sapie
121	KE.KP..	DVFQLASVKLPKSS	SQEI EAKELSFVLDYV	NQSPKCIAFGNEGEYV	AAVRDFY		Bos_taurus
121	KE.KP..	DVFQLVSVKLSKSS	SQEI EAKEISFVLDYINQ	SPKCIAFGNEGEYV	AAVRDFY		Canis_fami
120	KE.EP..	DIFQLVSVKLPKST	SQDVEARQLTFVLDYINR	SPKCIAFGNEGEYV	AAVRDFY		Mus_muscul
120	KE.DP..	DIFQLVSVKLPKST	SRNVEAKELTFVLDYINK	SPKSI AFGNEGEYV	AAVRDFY		Rattus_nor
121	KSGER..	DTFQLVSVKLTKAAGQ	DMEAKELSVVLE	EGVDASPKCTAF	GREGEYVASVK	DVN	Gallus_gal
120	KNNDS..	ASSQLVSVKLPKSA	SQECEAKEISV	TIEDVSHLPKCTA	IGRQCLYVASVK	GVH	Xenopus_la
121	MVTD	SNNESFQLVAVHLPKSAE	QVEAKELSTVASK	ISPNSCTAF	GRGGEFIAFSR	HLQ	Danio_reri
	ke-dp--difQLvsVklP	ksssqeve	EAkelsfvldyin-	sPkciAfGnegeyv	aavrdfy		consensus

	190	200	210	220	230	240																																																						
178	L	S	V	Y	F	F	K	K	K	T	S	R	F	T	L	S	S	R	N	K	K	H	A	K	N	N	F	T	C	V	A	C	H	P	T	E	D	C	I	A	S	G	H	M	D	G	K	I	R	L	W	R	N	F	Y	D	D	K		
178	L	S	V	Y	F	F	K	K	K	T	S	R	F	T	L	S	S	R	N	K	K	H	A	K	N	N	F	T	C	V	A	C	H	P	T	E	D	C	I	A	S	G	H	M	D	G	K	I	R	L	W	R	N	F	Y	D	D	K		
178	L	S	V	Y	F	F	K	K	K	T	T	R	F	T	L	S	S	R	N	K	K	H	A	R	N	N	F	T	C	V	T	C	H	P	K	E	D	C	I	A	T	G	H	K	D	G	K	I	R	L	W	R	N	F	D	D	E	K		
178	L	S	V	Y	F	F	K	K	K	T	S	R	F	T	L	S	S	R	N	K	K	H	A	K	N	N	F	T	C	V	A	C	H	P	K	E	D	C	I	A	T	G	H	K	D	G	K	I	R	L	W	R	N	F	D	D	D	K		
177	L	S	V	Y	F	F	K	K	K	T	C	N	F	T	L	P	S	T	K	N	K	N	A	K	N	K	F	T	C	V	A	C	H	P	K	E	D	C	I	A	S	G	H	M	D	G	K	I	R	L	W	R	N	F	H	S	D	Q		
177	L	S	V	Y	F	F	K	K	K	T	C	N	F	T	L	P	S	T	K	N	K	N	A	R	N	K	F	T	C	V	A	C	H	P	K	E	D	C	I	A	S	G	H	M	D	G	K	I	R	L	W	R	N	F	H	D	D	K		
179	L	Q	V	Y	F	F	K	Q	Q	L	N	R	F	S	L	R	A	T	.	N	K	K	G	G	N	N	V	F	T	C	V	A	C	H	P	Q	E	D	C	I	A	T	G	H	A	D	G	K	I	R	L	W	R	N	F	N	H	K	K	
178	L	S	I	Y	F	K	T	K	K	S	F	R	F	S	L	K	A	T	.	K	K	G	A	N	N	I	F	T	V	V	A	C	H	P	S	E	D	C	I	A	T	G	H	M	D	G	R	I	R	L	W	R	N	F	N	H	K	K		
181	L	N	V	Y	F	F	R	K	Q	K	T	Y	S	F	S	L	K	A	T	.	D	K	K	A	G	K	N	A	F	T	C	V	A	C	H	P	T	D	D	C	I	A	S	G	H	E	D	G	K	I	R	L	W	R	N	F	N	H	K	K
	LsvYffkkk-t-rFtL-strnKK-akN-FtCvAChP-eDCIASGHmDGkIRLWRNF-ddk																								consensus																																			

	250	260	270	280	290	300																																																						
238	K	Y	T	T	C	L	H	W	H	H	D	M	V	M	D	L	A	F	S	V	T	G	T	S	L	L	S	G	G	R	E	S	V	L	V	E	W	R	D	A	T	E	K	N	K	E	F	L	P	R	L	G	A	T	I	E	H	I	S	
238	K	Y	T	T	C	L	H	W	H	H	D	M	V	M	D	L	A	F	S	V	T	G	T	S	L	L	S	G	G	R	E	S	V	L	V	E	W	R	D	A	T	E	K	N	K	E	F	L	P	R	L	G	A	T	I	E	H	I	S	
238	K	Y	T	T	C	L	H	W	H	H	D	L	V	M	D	L	A	F	S	V	T	G	S	L	L	S	G	G	R	E	S	V	L	V	E	W	R	E	A	A	E	K	N	K	E	F	L	P	R	L	G	A	T	I	E	H	I	S		
238	K	Y	T	T	C	L	H	W	H	H	D	M	V	M	D	L	A	F	S	V	T	G	T	S	L	L	S	G	G	R	E	S	V	L	V	E	W	R	D	A	A	E	K	N	K	E	F	L	P	R	L	G	A	T	I	E	H	I	S	
237	K	Y	T	T	C	L	H	W	H	H	D	M	V	M	D	L	A	F	T	V	T	G	T	S	L	L	S	G	G	R	E	C	V	L	V	E	W	R	D	G	S	E	K	N	K	E	F	L	P	R	L	G	S	I	E	H	I	S		
237	L	Y	T	T	C	L	H	W	H	H	D	M	V	M	D	L	A	F	T	V	T	G	T	S	L	L	S	G	G	R	E	C	V	L	V	E	W	R	D	G	S	E	K	N	K	E	F	L	P	R	L	G	S	A	I	E	H	I	S	
238	E	Y	T	F	S	T	L	H	W	H	H	D	K	V	L	D	L	A	F	S	L	E	G	T	S	L	L	S	G	G	V	E	S	V	L	V	Q	W	H	C	G	S	D	C	K	R	D	F	L	P	R	L	G	S	A	I	E	Y	V	S
237	E	Y	T	T	S	L	H	W	H	H	D	S	V	M	D	L	A	F	S	A	Q	G	T	K	L	L	S	G	G	V	E	S	V	L	V	Q	W	P	Y	G	S	E	E	K	K	E	F	L	P	R	L	G	A	A	I	E	H	I	S	
240	E	Y	T	S	T	K	H	W	H	H	D	A	V	N	H	L	C	F	T	P	E	G	S	N	L	L	S	G	I	E	S	V	L	V	Q	W	Q	Y	G	D	M	S	K	K	E	F	L	P	R	L	G	G	S	I	S	H	V	S		
	kYTytcLHWHHDmVmdLaFsvtGtsLLSGGrEsVLVeWrdgseknkeFLPRLGatIehiS																								consensus																																			

	310	320	330	340	350	360																																																							
298	V	S	P	A	G	D	L	F	C	T	S	H	S	D	N	K	I	I	I	H	R	N	L	E	A	S	A	V	I	Q	G	L	V	K	D	R	S	I	F	T	G	L	M	I	D	P	R	T	K	A	L	V	L	N	G	K	P	G	H		
298	V	S	P	A	G	D	L	F	C	T	S	H	S	D	N	K	I	I	I	H	R	N	L	E	A	S	A	V	I	Q	G	L	V	K	D	R	S	I	F	T	G	L	M	I	D	P	R	T	K	A	L	V	L	N	G	K	P	G	H		
298	V	S	P	A	G	D	L	F	C	T	S	H	S	D	N	K	I	I	I	H	R	N	L	E	A	S	A	V	I	Q	G	L	V	K	D	R	S	I	F	T	G	L	M	I	D	P	R	T	K	A	L	V	L	N	G	K	P	G	H		
298	V	S	P	A	G	D	L	F	C	T	S	H	S	D	N	K	I	I	V	I	H	R	N	L	E	A	S	A	V	I	Q	G	L	V	K	D	R	S	I	I	Y	T	G	L	M	I	D	P	R	T	K	A	L	V	L	N	G	K	P	G	H
297	V	S	P	A	G	D	L	F	C	T	S	H	S	D	N	K	I	T	V	I	H	R	N	L	D	A	S	A	V	I	Q	G	L	V	K	D	R	S	I	S	T	G	L	M	V	D	P	R	T	K	A	L	V	L	N	G	K	P	G	H	
297	V	S	P	A	G	D	L	F	C	T	S	H	S	D	N	K	I	T	V	I	H	R	N	L	D	A	S	A	V	I	Q	G	L	V	K	D	R	S	I	S	T	G	L	M	V	D	P	R	T	K	A	L	V	L	N	G	K	P	G	H	
298	I	S	S	D	G	T	F	Y	C	T	S	H	T	D	N	R	I	T	I	I	N	S	N	L	R	F	S	K	T	I	Q	G	L	I	K	A	R	D	V	K	T	G	L	V	V	D	P	R	S	N	A	L	V	L	N	G	E	P	G	H	
297	V	S	P	H	G	T	L	Y	C	T	S	H	T	D	N	K	I	S	I	I	D	T	S	L	K	V	S	G	I	Q	G	L	I	K	G	T	V	V	K	T	G	L	I	V	D	P	R	S	N	A	L	V	L	N	G	K	P	G	H		
300	A	S	A	D	G	Q	L	F	C	T	A	H	S	D	N	K	I	S	I	I	E	S	S	F	K	V	S	G	L	I	Q	G	L	V	R	G	D	A	V	S	T	D	L	M	I	D	P	R	S	K	A	L	V	L	N	G	K	P	G	H	
	vSpaGdlfCTsHsDNkItiIhrnleaSavIQGLvkdrsi-TgLmiDPrtkALVLNGkPGH																								consensus																																				

	370	380	390	400	410	420	
358	LQFYSLQSDKQLYNLDIIQQEYINDYGLIQIELTKAAFGCFGNWLATVEQRQEKET..EL						Pan_trogl
358	LQFYSLQSDKQLYNLDIIQQEYINDYGLIQIELTKAAFGCFGNWLATVEQRQEKET..EL						Homo_sapie
358	LQFYSLQSDKQLYNLDIIQQEYINDSGLIQIELTKAAFGCYGNWLATVEQRQEKET..EL						Bos_taurus
358	LQFYSLQHDKQLYNLDIIQQEYINDYGLIQIELTKAAFDGCGNWLATVEQRQEKET..EL						Canis_fami
357	LQFYSLQGDQKQLYNLDIIQQEYINDEGLTQTELTKAAFGCSGTWLATVEQRQENEN..EL						Mus_muscul
357	LQFYSLQSDKQLYNLDIIQQEYINDQGLIQIELTKAAFGCSGSWLATVEQRQENEN..EL						Rattus_nor
358	LQFYCLQSDKQLYSLDIVQQEYIHQAAGLNQSDIVRVAFSAQGWLATVEERE..ET..DL						Gallus_gal
357	LQFYSLNDRHLYNLDIVQQEYIHQAAGLQYMDLVKASFSSSTRWLATVEELQGGEDSMDL						Xenopus_la
360	LQFYSLLRDKHLYNLDIVQQEYIYEAGLDQFEVVKAVFDVKGSLWLATVEERGHKTS..DL						Danio_reri
	LQFYsLqsDkqLYnLDIiQQEyInd-GLiqlieltkaafGcG-WLATVEqrqeket--eL						consensus

	430	440	450	460	470	480	
416	ELQMKLWMYNKKKTQGFILNNTKINMPHEDCITALCFNAEKSEQP..TLVTASKDGYFKVW						Pan_trogl
416	ELQMKLWMYNKKKTQGFILNNTKINMPHEDCITALCFNAEKSEQP..TLVTASKDGYFKVW						Homo_sapie
416	ELQMKLWMYNKKKTQGFVLNTKVNMPHEDHITALCFNAEKSESS..TLVTASKDGHFKVW						Bos_taurus
416	ELQMKLWMYNKKKTQGFVLNTKVNMPHEDHITALCFNAEKSESS..TLVTASKDGHFKVW						Canis_fami
415	ELQMKLWNYSKKTQGFVLNTKIAMPHDHITALCFNNAESYEKP..ILVTASRDGHFKVW						Mus_muscul
415	ELQMKLWNYSKKTQGFVLNTKISMPHDHITALCFNNAENYEKP..ILVTASRDGHFKVW						Rattus_nor
414	ELQLKLWFDEETQSFKLNTRISMPHEDHITAMCFRDTDEMEDDSLMLVTTGRDCVFKVW						Gallus_gal
417	EMQMKLWEYQDKSQSFLNNTINRPHEDHITSLCFRDEGNSEKEAPTTLVTTGKDGLFKVW						Xenopus_la
418	EFFLKLWAFDETQSFVLNTTVTEAHSERITSMCFSSSEETT...MLVTTALDGGFKAW						Danio_reri
	ElqmKLW-ynkktQgFvLNTkinmpHedhITaLCF-nae-se-p--tLVTaskDg-FKvW						consensus

	490	500	510	520	530	540	
474	ILTDDSD....IYKKA V GWTCD FVGSYHKYQATNCCFSE DGSLLAVSFEEIVTIWDSITW						Pan_trogl
474	ILTDDSD....IYKKA V GWTCD FVGSYHKYQATNCCFSE DGSLLAVSFEEIVTIWDSVTW						Homo_sapie
474	ILTDDSD....IYKKA V GWTCD FVGSYHKYQATNCCFSE DGSLLAVSFEEIVTIWDSSETW						Bos_taurus
474	MLTDDSD....IYKKA V GWTCD FVGSYHKYQATNCCFSE DGSLLAVSFEEIVTIWDSSETW						Canis_fami
473	ILTDDSD....IYKKA IAWTCD FVGSYHKYQATNCCFSE DGSLLAVSFEEIVTIWDSQTW						Mus_muscul
473	VLTDSD....IYKKA IAWTCD FVGSYHKYQATNCCFSE DGSLLAVSFEEIVTIWDSSETW						Rattus_nor
474	VILEDTP EGMYAQQSL SWS CDFVGSYHSYQATNCCFSE DGSLLAVSFEEIVTIWDSSTW						Gallus_gal
477	MLNNYD....IYKQS SSWL CDFVGGYHKNQATNCCFSE DGSLLAVSFDEIITVWESSTW						Xenopus_la
474	CQTADAQ.....QAQNY WSCDFVGSYHNLKPKNCCFSA DGSLLAVSFQGVLTLLWSPETW						Danio_reri
	iltddsd----iykkavgWtCDFVGSYHkyqatNCCFSeDGSLLAVSFeeivTiWds-TW						consensus

	550	560	570	580	590	600	
530	ELKCTFCQRAGKIRHL	CFGRLTCSKYLLGAT	TENGILCCWNLLSCALEWNA	AKLNVRVMEPD			Pan_troglo
530	ELKCTFCQRAGKIRHL	CFGRLTCSKYLLGAT	TENGILCCWNLLSCALEWNA	AKLNVRVMEPD			Homo_sapie
530	ELKCTFCQRAGKIRHL	CFGRLTCSKYLLGAT	TENGILCCWNLLSCALEWNA	AKLNVRVMEPD			Bos_taurus
530	ELKCTFCQRAGSIRYL	CFGRLTCSKYLLGAT	KSDILCCWNLLSCALEWNA	AKLNVRVLEPD			Canis_fami
529	ELKCTFCQRAGKIRHL	CFGRLTCSKYLLGT	TENGILCCWNLLSCSIQWSA	AKLNVRVMEPD			Mus_muscul
529	ELKCTFCQRAGKIRHL	CFGRLTCSKYLLGT	TENNLLCCWNLLSCSMQWSA	AKLNVRVMEAD			Rattus_nor
534	DLKCTFCCHPPCKIRS	ICFGRLTCSKYLLGAT	DHGFLLCCWNLLSCALEWSA	HLNVVVLQPD			Gallus_gal
533	DLKQTFCQPPCKIRNL	CFGRLTCSKYLLVAST	NNGFLLCCWNLLTCALEWRA	QLDATVVLQPD			Xenopus_la
528	ELLTTLCCQPPGEIRD	LCFGRLLCSKYLLST	TKNLLCCWNLLTCALEWS	TSVDVSRLLQSD			Danio_reri
	eLkcTfCqraGkIRhLcFGRLtCSKYLLg-TengilCCWNLLsCaleWsaKlnvrvmepD						consensus

	610	620	630	640	650	660	
590	PNSENIAA	ISQSSV	GSDLFVFKPSEPR	PLYIQKGISRE	EVQWGVFVPRDV	PESFTSEAYQ	Pan_troglo
590	PNSENIAA	ISQSSV	GSDLFVFKPSEPR	PLYIQKGISRE	KVQWGVFVPRDV	PESFTSEAYQ	Homo_sapie
590	PNSENIAA	IAQSSV	GSDLFVFKPSEPR	PLYIQKNICRE	EVWGVFVPRDV	PESFTSEAYQ	Bos_taurus
590	PNSENIAA	ISQSSM	GSDLFVFKPSEPR	PLYIQKNISRE	DVQWGVFVPRDV	PESFTSEAYQ	Canis_fami
589	PYSDHVA	AAVAQSSA	GSDLFVFKPSEPR	PLYIQKNVSRE	EVQWGVFVPRDV	PESFTSETHQ	Mus_muscul
589	PYSDHIA	AAVARSS	EGSDLFVFKPSEPR	PLYIQKNVSRE	KVQWGVFVPRDV	PESFTSEAHQ	Rattus_nor
594	PLSEHIA	AVSWLFKES	SLFVFKPNEAR	PICIQRKFKERI	QFAAFVPRDVP	ETIGSEKYL	Gallus_gal
593	PLSENIA	AVVSCSKRW	SNLFLFQPSEPR	PFYTKQNICQEK	VQWAVFVPRDVP	EFVKSESHQ	Xenopus_la
588	PLSENVA	AFSFE	SKHTHLFVFKP	SEPRPLFSQR	YVCLERVDRA	VFPREEPFN	SCDEESCQ
	P-SeniAavsqss-gsdLfvFkPsEpRplyiQknisrEkvqwgVfVPrdvPesftsEayq						consensus

	670	680	690	700	710	720	
650	WLNRSQFYFLTKSQS	LLTFSTESPEEK	LTPTSKQLLAEES	LPTTPFYFILGKHR	.QQQDE		Pan_troglo
650	WLNRSQFYFLTKSQS	LLTFSTKSPEEK	LTPTSKQLLAEES	LPTTPFYFILGKHR	.QQQDE		Homo_sapie
650	WLNRSQFYFLTKSQS	LLTFSTQSPEEK	LTPTSKQLLAEES	LPTTPFYLLGKHR	KEQQND		Bos_taurus
650	WLNRSQFYFLTKSQS	LLTFSTKSPEEK	LTPTSKQLLAEES	LPTTPFYFILGKHR	.EQQDE		Canis_fami
649	WLNRSQFYFLTKSQS	LLTFSTKSPEEK	LTPTSKQLLAEES	LPTTPFSFILGKHR	.QQQGA		Mus_muscul
649	WLNRSQFYFLTESQC	LLTFSTKYAEK	LTPTSKQLLAEES	LPTTPFSFILGKHR	.QQQDT		Rattus_nor
654	WLNRSQFLFLTDIQ	ELMTVSTKSAQ	ERLTLSSKQLAVEES	LPVTPFSLLLGKHR	.HQQSQ		Gallus_gal
653	WLNKSQLYFLTEKQD	LLTFSSKSTEER	LTPLSKQLAVEES	LPVTPFHLLGK	KR.QEEQE		Xenopus_la
648	WLNRSQLYFLTHNMD	LLTFSSATEEDRM	LSKRLVIDESVAV	TPFYLLGRHR	.KQQH		Danio_reri
	WLnRSQfyFLTksqsLLTfStkspeekltptSKqLlaeESlptTPFyfiLGkhr-qqq-e						consensus

	730	740	750	760	770	780	
709	KLNETLENELVQLPLTENIPAI	SELLHTPAHVLPSAAFLCS	MFVNSLLL	SKETKSAKEIP			Pan_troglo
709	KLNETLENELVQLPLTENIPAI	SELLHTPAHVLPSAAFLCS	MFVNSLLL	SKETKSAKEIP			Homo_sapie
710	KLNEALENELVQLPLTENIPAI	SELLRTPAHVLPSASFLCS	MFVNSLLL	SKETKSAEEHP			Bos_taurus
709	KINEALESEL	IQPLTENIPAINELLHTPAHVLPSASFLCS	MFVNSLLL	SKETKSGEEIP			Canis_fami
708	KL TETS ENELVQLPLTENIPAI	TELLHTPAHVLPSASFLCS	LFVNSLLL	SKETKSAEEVP			Mus_muscul
708	KSTETS ESELVQLPLTENIPAI	TELLHTPAHVLPSASFLC	TLFVNSLLL	SKETKSAEEIS			Rattus_nor
713	.GDVDLGKIV	HHHHEQDSPAVK	ELLHTPAHVLPSASFLC	PIFIN	SLLV	SKENKSTEEFTP	Gallus_gal
712	KLDAQSVRAAPSFHRGY	NSAIREVLHTPAHVLPPASV	LCTVFN	SLLISKKS	SQSTEE	ESK	Xenopus_la
706	KLNTETQEPADKPQHT	QGSVTIKQLLHTPAHVLPAASV	LCSMFVRSLLIS	NTGVR	EE	MDS	Danio_reri
	kln e--e- elvqlpltenipaisellhTPAHVLPsAsfLCsmFvnSLLlSketksaeeip						consensus

	790	800	810	820	830	840	
769	EDVDMEEKES	EDSDEEN	DFTKKVQ.	DTSNTGLGEDIIHQ	LSKSEEKELR	KFRKIDYSWI	Pan_troglo
769	EDVDMEEKES	EDSDEEN	DFTKQVQ.	DTSNTGLGEDIIHQ	LSKSEEKELR	KFRKIDYSWI	Homo_sapie
770	DDVDMVEEKES	DDSDEEN	NFTEKIQ.	DTNNTDLEEDIIYQ	LSKSEEKELR	KFRKVDYSWI	Bos_taurus
769	EDVDMEG.	KESND	SDEEKDFTEKIE.	DTNSTDLGEDLIHQ	LSKSEEKELR	KFRKVDYSWI	Canis_fami
768	DDVDMEGNKES	DDSDEEYDLTEKDK.	ETNNTDLGEDAIHQ	LSKSEEKELR	KFRKVDYSWL		Mus_muscul
768	DDVDMEGNEES	DDSDEEYDLTEKAK.	ETSNPDLGEDAIHQ	LSKSEEKELR	KFRKVDYSWL		Rattus_nor
771	DEVEMSEFEAE	DDSDEEN	SVTEMKQED	KMPLESLGETTHR	LSKSEEKELR	KIRKVDYSWI	Gallus_gal
772	EDEEMKSEHSEAD	SSDETEEME	SQK..RFP	SAFSLDVAAML	PKFQEKELR	RIRRTDYSWI	Xenopus_la
766	SEQEMDSEKKEE	EESEEME	EACD	GQQ.	ELRAQGSVDEQKPK	LSKAQERELKSLRKTDFSWM	Danio_reri
	edvdMe-ekesddSdeE-d-tek-q-dt-ntdlgediihqLsKseEkELrkfRkvDySWi						consensus

828	AAL	Pan_troglo
828	AAL	Homo_sapie
829	AAL	Bos_taurus
827	TVL	Canis_fami
827	TAL	Mus_muscul
827	TAL	Rattus_nor
831	SVF	Gallus_gal
830	SSL	Xenopus_la
825	TSLIDSKP	Danio_reri
	tal-----	consensus

non conserved
 similar
 conserved
 all match