			*	20	*	40	*	60		
human	:	MGQPGN <mark>G</mark> S	AFLLAPN <mark>RS</mark> H	IAPD <mark>H</mark> DVTQQR	.DE <mark>v</mark> wvvgm <mark>g</mark> :	IVMSLIVLAIV	FGNVLVITAI.	AKFERLQTVTN	:	69
monkey	:	MGQPGN <mark>G</mark> S	<mark>AFLL</mark> APNGSH	IAPD <mark>h</mark> dvtq e r	.DE <mark>AWVVGM</mark> G	IVMSLIVLAIV	FGNVLVITAI.	AKFERLQTVTN	:	69
BOVIN	:	MGQPGN <mark>R</mark> S	V FLL APN <mark>A</mark> SH	IAPD <mark>Q</mark> NVT <mark>LE</mark> R	.DEA <mark>WVVGM</mark> G:	ILMSLIVLAIV	FGNVLVITAI.	AKFERLQTVTN	:	69
PIG	:	MGQPGN <mark>R</mark> S	VFLLAPNGSE	IAPD <mark>Q</mark> DV <mark>P</mark> QER	DEA <mark>WVVGM</mark> A	IVMSLIVLAIV	FGNVLVITAI	AKFERLQTVTN	:	69
cat	:	MGQPGN <mark>R</mark> S	V <mark>FLL</mark> APNGSH	IAPD <mark>Q</mark> D <mark>G</mark> TQ E R	N <mark>D</mark> AWVVGM <mark>G</mark> :	IVMSLIVLAIV	FGNVLVITAI.	ARFERLQTVTN	:	69
dog	:	MGQPANRS	V <mark>FLL</mark> APNGSH	IAPD <mark>QGD</mark> SQ E R	SEAWVVGM <mark>G</mark>	IVMSLIVLAIV	FGNVLVITAI.	ARFERLQTVTN	:	69
MOUSE	:	MGPHGNDS	DFLLAPNGS <mark>F</mark>	APD <mark>H</mark> DVTQ e r	DEA <mark>WVVGM</mark> A	ILMSVIVLAIV	FGNVLVITAI.	AKFERLQTVTN	:	69
rat	:	MEPHGNDS	D <mark>FLLAPNGS</mark> F	AP <mark>G</mark> HDITQ E R	.DEA <mark>WVVGM</mark> A.	ILMSVIVLAIV	FGNVLVITAI	AKFERLQTVTN	:	69
hamster	:	MGPPGNDS	DFLLTTNGSH	VPDHDVTE e r	.DEA <mark>WVVGM</mark> A.	ILMSVIVLAIV	FGNVLVITAI.	AKFERLQTVTN	:	69
		*	80	*	100	*	120	* 1		
human	:	* YFI <mark>T</mark> SLAC					-	* 1 AVDRY <mark>F</mark> AITSP	:	138
human monkey	:		ADLVMGLAVV	PFGA <mark>A</mark> HILMK	MW <mark>T</mark> FGNFWCI	EFWTSIDVLCV	TASIETLCVI.	<u>+</u>	-	138 138
	•	YFITSLAC	ADLVMGLAVV ADLVMGLAVV	PFGA <mark>A</mark> HILMK PFGA <mark>A</mark> HILMK	MW <mark>T</mark> FGNFWCI MWTFGNFWCI	EFWTSIDVLCV EFWTSIDVLCV	TASIETLCVI. TASIETLCVI.	AVDRY <mark>F</mark> AITSP	:	
monkey	•	YFITSLAC YFITSLAC	ADLVMGLAVV ADLVMGLAVV ADLVMGLAVV	PFGA <mark>A</mark> HILMK PFGA <mark>A</mark> HILMK PFGA <mark>C</mark> HILMK	MWTFGNFWCI MWTFGNFWCI MWTFGNFWCI	EFWTSIDVLCV EFWTSIDVLCV EFWTSIDVLCV	TASIETLCVI. TASIETLCVI. TASIETLCVI.	AVDRY <mark>F</mark> AITSP AVDRY <mark>F</mark> AITSP	:	138
monkey BOVIN	:	YFITSLAC YFITSLAC YFITSLAC	ADLVMGLAVV ADLVMGLAVV ADLVMGLAVV ADLVMGLAVV	PFGA <mark>A</mark> HILMK PFGAAHILMK PFGA <mark>C</mark> HILMK PFGA <mark>S</mark> HILMK	MW <mark>T</mark> FGNFWCI MWTFGNFWCI MWTFGNFWCI MW <mark>T</mark> FG <mark>S</mark> FWCI	EFWTSIDVLCV EFWTSIDVLCV EFWTSIDVLCV EFW <mark>I</mark> SIDVLCV	TASIETLCVI. TASIETLCVI. TASIETLCVI. TASIETLCVI.	AVDRY <mark>F</mark> AITSP AVDRY <mark>F</mark> AITSP AVDRY <mark>L</mark> AITSP	:	138 138
monkey BOVIN PIG	: :	YFITSLAC YFITSLAC YFITSLAC YFITSLAC	ADLVMGLAVV ADLVMGLAVV ADLVMGLAVV ADLVMGLAVV ADLVMGLAVV	PFGA <mark>A</mark> HILMK PFGA <mark>A</mark> HILMK PFGA <mark>C</mark> HILMK PFGASHILMK PFGA <mark>S</mark> HILMK	MWTFGNFWCI MWTFGNFWCI MWTFGNFWCI MWTFGSFWCI MWTFGNFWCI	EFWTSIDVLCV EFWTSIDVLCV EFWTSIDVLCV EFW <mark>I</mark> SIDVLCV EFWTSIDVLCV	TASIETLCVI. TASIETLCVI. TASIETLCVI. TASIETLCVI. TASIETLCVI.	AVDRY <mark>F</mark> AITSP AVDRY <mark>F</mark> AITSP AVDRYLAITSP AVDRY <mark>L</mark> AITSP	: : : : : : : : : : : : : : : : : : : :	138 138 138
monkey BOVIN PIG cat	: :	YFITSLAC YFITSLAC YFITSLAC YFITSLAC YFITSLAC	ADLVMGLAVV ADLVMGLAVV ADLVMGLAVV ADLVMGLAVV ADLVMGLAVV ADLVMGLAVV	PFGA <mark>A</mark> HILMK PFGA <mark>A</mark> HILMK PFGA <mark>C</mark> HILMK PFGASHILMK PFGASHILMK PFGA <mark>S</mark> HILMK	MWTFGNFWCI MWTFGNFWCI MWTFGNFWCI MWTFGNFWCI MWTFGNFWCI MWTFGNFWCI	EFWTSIDVLCV EFWTSIDVLCV EFWTSIDVLCV EFWTSIDVLCV EFWTSIDVLCV	TASIETLCVI. TASIETLCVI. TASIETLCVI. TASIETLCVI. TASIETLCVI. TASIETLCVI.	AVDRY <mark>F</mark> AITSP AVDRYFAITSP AVDRYLAITSP AVDRYLAITSP AVDRYFAITSP	:	138 138 138 138
monkey BOVIN PIG cat dog	:	YFITSLAC YFITSLAC YFITSLAC YFITSLAC YFITSLAC YFI <mark>I</mark> SLAC	ADLVMGLAVV ADLVMGLAVV ADLVMGLAVV ADLVMGLAVV ADLVMGLAVV ADLVMGLAVV ADLVMGLAVV	PFGA <mark>A</mark> HILMK PFGA <mark>A</mark> HILMK PFGASHILMK PFGASHILMK PFGASHILMK PFGASHILMK PFGASHILMK	MWTFGNFWCI MWTFGNFWCI MWTFGNFWCI MWTFGNFWCI MWTFGNFWCI MWTFGNFWCI MWNFGNFWCI	EFWTSIDVLCV EFWTSIDVLCV EFWTSIDVLCV EFWTSIDVLCV EFWTSIDVLCV EFWTSIDVLCV EFWTSIDVLCV	TASIETLCVI. TASIETLCVI. TASIETLCVI. TASIETLCVI. TASIETLCVI. TASIETLCVI. TASIETLCVI.	AVDRY <mark>F</mark> AITSP AVDRY <mark>F</mark> AITSP AVDRYLAITSP AVDRYLAITSP AVDRYFAITSP AVDRYFAITSP		138 138 138 138 138

		40	*	160	* 18	30	*	200		
human	:	FKYQSLLT	KNKARVIIL	MVWIVSGLTSFLE	PIQMHWYRATH(QE <mark>AINCY</mark> A <mark>N</mark> ET	CCDFFTNÇ	AYAIASSIVS	:	207
monkey	:	FKYQSLLT	KNKARVIIL	MVWIVSGL <mark>T</mark> SFLE	IQMHWYRATH(QEAINCYA <mark>K</mark> ET	CCDFFTNÇ	AYAIASSIVS	:	207
BOVIN	:	FKYQCLLT	KNKARVVIL	MVWIVSGLTSFLE	PIQMHWYRASH	KEAINCYAKET	CCDFFTNQ	PYAIASSIVS	:	207
PIG	:	FKYQCLLT	KNKARVVIL	MVWVVSGL <mark>i</mark> sfle	T <mark>K</mark> MHWY <mark>Q</mark> ATH	REALNCYA <mark>E</mark> EA	CCDFFTNQ	PYAIASSIVS	:	207
cat	:	FKYQSLLT	KNKARVVIL	MVWIVSGL <mark>T</mark> SFLE	IQMHWYRATH	QEAINCYA <mark>KE</mark> T	CCDFFTNÇ	AYAIASSIVS	:	207
dog	:	FKYQSLLT	KNKARVVIL	MVWIVSGL <mark>T</mark> SFLE	IQMHWYRATH(QEAINCYA <mark>K</mark> ET	CCDFFTNÇ	AYAIASSIVS	:	207
MOUSE	:	FKYQSLLT	KNKARVVIL	MVWIVSGL <mark>T</mark> SFLF	IQMHWYRATH	KK <mark>AIDCY</mark> TEET	CCDFFTNÇ	AYAIASSIVS	:	207
rat	:	FKYQSLLT	KNKARVVIL	MVWIVSGL <mark>T</mark> SFLE	PIQMHWYRATH <mark>I</mark>	K <mark>QAIDCY</mark> AKET	CCDFFTNÇ	AYAIASSIVS	:	207
hamster	:	FKYQSLLT	KNKARMVIL	MVWIVSGL <mark>T</mark> SFLF	YIQMHWYRATH	QK <mark>AIDCY</mark> HKET	CCDFFTNÇ	AYAIASSIVS	:	207
		*	220	*	240	* 2	60	*		
human	:			* •AKRQLQKIDKSE					:	276
human monkey	:	FYVPLVIM	VFVYSRVFQ		GRFH <mark>V</mark> QNLSQ	VEQDGRTGH <mark>G</mark> L	RRSSKFCI	LKEHKALKTLG	:	276 276
	: :	FYVPLVIM FYVPLVIM	VFVYSRVFQ VFVYSRVFQI	EAKRQLQKIDKSE	GRFH <mark>V</mark> QNLSQV GRFHAQNLSQV	VEQDGRTGHG <mark>L</mark> VEQDGRTG <mark>H</mark> GL	RRSSKFCI RRSSKF <u>C</u> I	KEHKALKTLG KEHKALKTLG	: : :	
monkey	: : :	FYVPLVIM FYVPLVIM FYLPLVVM	VFVYSRVFQ VFVYSRVFQ VFVYSRVFQ	EAKRQLQKIDKSE EAKRQLQKIDKSE	GRFH <mark>V</mark> QNLSQ GRFHAQNLSQ GRFHAQNVSQ	VEQDGRTGHG <mark>L</mark> VEQDGRTGHGL VEQDGRSG <mark>L</mark> GQ	RRSSKFCI RRSSKFCI RRTSKF <mark>Y</mark> I	KEHKALKTLG KEHKALKTLG KEHKALKTLG	: : : : : : : : : : : : : : : : : : : :	276
monkey BOVIN	: : : : : : : : : : : : : : : : : : : :	FYVPLVIM FYVPLVIM FYLPLVVM FYLPLVVM	VFVYSRVFQ VFVYSRVFQ VFVYSRVFQ VFVYSRVFQ	EAKRQLQKIDKSE EAKRQLQKIDKSE VAKRQLQKIDKSE	GRFH <mark>V</mark> QNLSQ GRFHAQNLSQ GRFHAQNVSQ GRFHAQNLSQ	VEQDGRTGHGL VEQDGRTGHGL VEQDGRSGLGQ AEQDGRSGPGH	RRSSKFCI RRSSKFCI RRTSKF <mark>Y</mark> I RRSSKFCI	KEHKALKTLG KEHKALKTLG KEHKALKTLG KEHKALKTLG	: : : : : : : : : : : : : : : : : : : :	276276
monkey BOVIN PIG	: : : : : :	FYVPLVIM FYVPLVIM FYLPLVVM FYLPLVVM FYLPLVVM	VFVYSRVFQ VFVYSRVFQ VFVYSRVFQ VFVYSRVFQ VFVYSRVFQ	EAKRQLQKIDKSE EAKRQLQKIDKSE VAKRQLQKIDKSE VARRQLQKIDKSE	GRFH <mark>V</mark> QNLSQ GRFHAQNLSQ GRFHAQNVSQ GRFHAQNLSQ GRFHAQNLSQ GRFHAQNLSQ	VEQDGRTGHGL VEQDGRTGHGL VEQDGRSGLGQ AEQDGRSGPGH VEQDGRSGHGH	RRSSKFCI RRSSKFCI RRTSKF <mark>Y</mark> I RRSSKFCI RR <mark>A</mark> SKFCI	KEHKALKTLG KEHKALKTLG KEHKALKTLG KEHKALKTLG KEHKALKTLG	: : : :	276276276
monkey BOVIN PIG cat	: : : : : : : : : : : : : : : : : : : :	FYVPLVIM FYVPLVIM FYLPLVVM FYLPLVVM FYLPLVVM FYLPLVVM	VFVYSRVFQ VFVYSRVFQ VFVYSRVFQ VFVYSRVFQ VFVYSRVFQ VFVYSRVFQ	EAKRQLQKIDKSE EAKRQLQKIDKSE VAKRQLQKIDKSE VARRQLQKIDKSE VA <mark>Q</mark> RQLQKIDKSE	GRFH <mark>V</mark> QNLSQ GRFHAQNLSQ GRFHAQNVSQ GRFHAQNLSQ GRFHAQNLSQ GRFHAQNLSQ GRFHAQNLSQ	VEQDGRTGHGL VEQDGRTGHGL VEQDGRSGLGQ AEQDGRSGPGH VEQDGRSGHGH VEQDGRSGHGH	RRSSKFCI RRSSKFCI RRTSKF <mark>Y</mark> I RRSSKFCI RR <mark>A</mark> SKFCI RRSSKFCI	KEHKALKTLG KEHKALKTLG KEHKALKTLG KEHKALKTLG KEHKALKTLG KEHKALKTLG	: : : :	276276276276
monkey BOVIN PIG cat dog	: : : : : : : : : : : : : : : : : : : :	FYVPLVIM FYVPLVVM FYLPLVVM FYLPLVVM FYLPLVVM FYLPLVVM FYVPLCVM FYVPLVVM	VFVYSRVFQ VFVYSRVFQ VFVYSRVFQ VFVYSRVFQ VFVYSRVFQ VFVYSRVFQ VFVYSRVFQ VFVYSRVFQ	EAKRQLQKIDKSE EAKRQLQKIDKSE VAKRQLQKIDKSE VARRQLQKIDKSE VAQRQLQKIDKSE VAQRQLQKIDRSE	GRFH <mark>V</mark> QNLSQNGRFHAQNLSQNGRFHAQNLSQNGRFHAQNLSQNGRFHAQNLSQNGRFHAQNLSQNGRFHAQNLSQNGRFHAQNLSQNGRFHAQNLSQNGRFHAQNLSQNGRFHAQNLSQNGRFHAQNLSQNGRFHAQNLSQN	VEQDGRTGHGL VEQDGRTGHGL VEQDGRSGLGQ AEQDGRSGPGH VEQDGRSGHGH VEQDGRSGHGL VEQDGRSGHGL VEQDGRSGHGL	RRSSKFCI RRSSKFCI RRTSKFYI RRSSKFCI RRASKFCI RRSSKFCI RRSSKFCI RSSSKFCI	KEHKALKTLG KEHKALKTLG KEHKALKTLG KEHKALKTLG KEHKALKTLG KEHKALKTLG KEHKALKTLG	: : : :	276 276 276 276 276

		280	*	300	*	320	* 340		
human	:	IIMGTFTLC	WLPFFIVNIVE	IVIQDNLI <mark>r</mark> kev	YILLNWIGYVI	NS <mark>G</mark> FNPLIYCRS	PDFRIAFQELL	CLRRS : 345	5
monkey	:	IIMGTFTLC	WLPFFIVNIVE	HVIQDNLIPKEV	YILLNWVGYVI	NS <mark>G</mark> FNPLIYCRS	PDFRIAFQELL	CLRRS : 345	5
BOVIN	:	IIMGTFTLC	WLPFFIVNIVE	IVI <mark>K</mark> DNLI <mark>R</mark> KEI	YILLNWLGYI	NS <mark>A</mark> FNPLIYCRS	PDFRIAFQELL	CLRRS : 345	5
PIG	:	IIMGTFTLC	WLPFFIVNIVE	H <mark>GIH</mark> DNLIPKEV	YILLNWVGYVI	NSAFNPLIYCRS	PDFRMAFQELL	CLHRS : 345	5
cat	:	IIMGTFTLC	WLPFFIVNIVE	HVIQDNLIPKEV	YILLNWVGYVI	NSAFNPLIYCRS	PDFRIAFQELL	CLRRS : 345	5
dog	:	IIMGTFTLC	WLPFFIVNIVE	HVIQDNLIPKEV	YILLNWVGYVI	NS <mark>A</mark> FNPLIYCRS	PDFRIAFQELL	CLRRS : 345	5
MOUSE	:	IIMGTFTLC	WLPFFIVNIVE	IVI <mark>R</mark> DNLIPKEV	YILLNWLGYVI	NS <mark>A</mark> FNPLIYCRS	PDFRIAFQELL	CLRRS : 345	5
rat	:	IIMGTFTLC	WLPFFIVNIVE	IVI <mark>RA</mark> NLIPKEV	YILLNWLGYVI	NS <mark>A</mark> FNPLIYCRS	PDFRIAFQELL	CLRRS : 345	5
hamster	:	IIMGTFTLC	WLPFFIVNIVE	HVIQDNLIPKEV	YILLNWLGYVI	NS <mark>A</mark> FNPLIYCRS	PDFRIAFQELL	CLRRS : 345	5
		*	360	*	380	Ψ /	00	*	
human			000		300	^ 4	00		
Human	:	S <mark>L</mark> KAYGNGY		GEQSGYH <mark>VE</mark> QE		^ 4 PG <mark>TE</mark> DFVGHQGT		NCSTN : 409	9
monkey	:		SSNGN7		KENKLLCE DL		VPSDNIDSQGR		-
	:	S <mark>L</mark> KA <mark>C</mark> GNGY	SSNGN SSNSNGN	GEQSGYH <mark>LE</mark> QE	KENKLLCEDLI KENKLLCEDLI	PGT <mark>E</mark> DFVGHQGT	VPSDNIDSQGR VPSDNIDSQGR	SCSTN : 411	1
monkey	: :	SLKA <mark>C</mark> GNGY SLKAYGNGC SLKAYGNGC	SSNGN] SSNSNGN] SSNSNDRTDY] SSNSNGRTDY]	GEQSGYHLEQE GEQSGYHLGEE GEQSGCYLGEE	KENKLLCEDL KENKLLCEDL KDSELLCEDP KDSERLCEDA	PGTEDFVGHQGT PGTEDFVGHQGT PGTENFVNQQGT PGPEGCAHRQGT	VPSDNIDSQGR VPSDNIDSQGR VPSDSIDSQGR VPDDS <mark>T</mark> DSQGR	SCSTN: 413 NCSTN: 414 NCSTN: 414	1 4
monkey BOVIN	: :	SLKA <mark>C</mark> GNGY SLKAYGNGC SLKAYGNGC	SSNGN] SSNSNGN] SSNSNDRTDY] SSNSNGRTDY]	GEQSGYHLEQE GEQSGYHLGEE GEQSGCYLGEE	KENKLLCEDL KENKLLCEDL KDSELLCEDP KDSERLCEDA	PGTEDFVGHQGT PGTEDFVGHQGT PGTENFVNQQGT	VPSDNIDSQGR VPSDNIDSQGR VPSDSIDSQGR VPDDS <mark>T</mark> DSQGR	SCSTN: 413 NCSTN: 414 NCSTN: 414	1 4 4
monkey BOVIN PIG	: : : : :	SLKA <mark>C</mark> GNGY SLKAYGNGC SLKAYGNGC SLKAYGNGY	SSN <mark>GN</mark> SSNSNGN] SSNSNDRTDY] SSNSNGRTDY] SNNSNSRTDY <i>I</i>	GEQSGYHLEQE GEQSGYHLGEE GEQSGCYLGEE GEHSGGPLGQE	KENKLLCEDL KENKLLCEDL KDSELLCEDP KDSERLCEDA KDSEVLCEDP	PGTEDFVGHQGT PGTEDFVGHQGT PGTENFVNQQGT PGPEGCAHRQGT	VPSDNIDSQGR VPSDNIDSQGR VPSDSIDSQGR VPDDS <mark>T</mark> DSQGR VPNDSIDSQG <mark>Q</mark>	SCSTN : 417 NCSTN : 414 NCSTN : 414 NGSTN : 414	1 4 4 4
monkey BOVIN PIG cat	: : : : : : : : : : : : : : : : : : : :	SLKACGNGY SLKAYGNGC SLKAYGNGY SLKAYGNGY SLKAYGNGY SSKTYGNGY	SSNGNI SSNSNGNI SSNSNDRTDYI SSNSNGRTDYI SNNSNSRTDYI SNNSNSRSDYI SNNSNSRSDYI SSNSNGRTDYI	GEQSGYHLEQE GEQSGYHLGEE GEQSGCYLGEE AGEHSGGPLGQE AGEHSGCHLGQE GEPNTCQLGQE	KENKLLCEDL KENKLLCEDL KDSELLCEDP KDSERLCEDA KDSEVLCEDP KDSELLCEDP REQELLCEDP	PGTEDFVGHQGT PGTEDFVGHQGT PGTENFVNQQGT PGPEGCAHRQGT PGTENLANRQGT PGTEDRQGT PGMEGFVNCQGT	VPSDNIDSQGR VPSDNIDSQGR VPSDSIDSQGR VPDDS <mark>T</mark> DSQGR VPNDSIDSQGQ VPSDSVDSQGR VPSDSVDSQGR	SCSTN : 412 NCSTN : 414 NCSTN : 414 NGSTN : 414 NCSTN : 414 NCSTN : 414	1 4 4 4 1
monkey BOVIN PIG cat dog	: : : : : : : : : : : : : : : : : : : :	SLKACGNGY SLKAYGNGC SLKAYGNGY SLKAYGNGY SLKAYGNGY SSKTYGNGY	SSNGNI SSNSNGNI SSNSNDRTDYI SSNSNGRTDYI SNNSNSRTDYI SNNSNSRSDYI SNNSNSRSDYI SSNSNGRTDYI	GEQSGYHLEQE GEQSGYHLGEE GEQSGCYLGEE AGEHSGGPLGQE AGEHSGCHLGQE GEPNTCQLGQE	KENKLLCEDL KENKLLCEDL KDSELLCEDP KDSERLCEDA KDSEVLCEDP KDSELLCEDP REQELLCEDP	PGTEDFVGHQGT PGTEDFVGHQGT PGTENFVNQQGT PGPEGCAHRQGT PGTENLANRQGT PGTEDRQGT	VPSDNIDSQGR VPSDNIDSQGR VPSDSIDSQGR VPDDS <mark>T</mark> DSQGR VPNDSIDSQGQ VPSDSVDSQGR VPSDSVDSQGR	SCSTN : 412 NCSTN : 414 NCSTN : 414 NGSTN : 414 NCSTN : 414 NCSTN : 414	1 4 4 4 1

human : DSLL : 413
monkey : DSLL : 415
BOVIN : DSLL : 418
PIG : DSML : 418
cat : DSLL : 418
dog : DSLL : 415
MOUSE : DSPL : 418
rat : DSPL : 418
hamster : DSPL : 418