

		*	20	*	40		*	60	*	80		*	100				
CgKatG1	:	-----	-----	-----	-----	MGE	-----	CP	VNH	-----	-----	AN	VAGGGTRNN	DWWP	: 23		
CcochKatG1	:	-----	-----	-----	-----	MGE	-----	CP	VNR	-----	-----	AN	VAGGGTRNN	DWWP	: 23		
MthKatG1	:	-----	-----	-----	-----	MGE	-----	CP	VRHS	-----	-----	AN	VAGGGTRNT	DWWP	: 24		
TterKatG1	:	-----	-----	-----	-----	MGE	-----	CP	NRF	-----	-----	ANA	VAGGGTRNT	DWWP	: 23		
PanKatG1	:	-----	-----	-----	-----	MGE	-----	CP	VNHTKS	-----	-----	AN	VAGGGTRNI	DWWP	: 26		
CtheKatG1	:	-----	-----	-----	-----	MGE	-----	CP	VRH	-----	-----	DN	VAGGGTRNT	DWWP	: 23		
MagKatG1	:	-----	-----	-----	-----	MGE	-----	CP	LRT	-----	-----	AN	VAGGGTRNR	DWWP	: 23		
SmaKatG1	:	-----	-----	-----	-----	MSE	-----	CP	VRK	-----	-----	SN	VGGGGTRNN	DWWP	: 23		
NtetKatG1	:	-----	-----	-----	-----	MSE	-----	CP	VRK	-----	-----	SN	VGGGGTRNH	DWWP	: 23		
MgKatG1	:	-----	-----	-----	-----	MS	-ANG	CP	IKL	-----	-----	AN	VGGGGTRNR	DWWP	: 25		
F2E518_Hv	:	-----	-----	-----	-----	MGE	-----	CP	VDHKN	-----	-----	LN	IGGGGTRNT	DWWP	: 25		
VdaKatG1L	:	-----	-----	-----	-----	MAE	SESK	CP	VHQLN	-----	-----	N	VGGGGTRNR	DWWP	: 28		
VaaKatG1	:	-----	-----	-----	-----	MAE	SESK	CP	VHKLN	-----	-----	N	VGGGGTRNR	DWWP	: 28		
VdaKatG1V	:	-----	-----	-----	-----	MAE	SESK	CP	VHRLN	-----	-----	N	VGGGGTRNR	DWWP	: 28		
CgraKatG1	:	-----	-----	-----	-----	MAE	E--K	CP	FIRTM	-----	-----	N	TGGGGTKNR	DWWP	: 26		
ChigKatG1	:	-----	-----	-----	-----	MAE	D--K	CP	FIRTM	-----	-----	N	TGGGGTKNR	DWWP	: 26		
MacrKatG1	:	-----	-----	-----	-----	MAE	S--K	CP	PHL	-----	-----	N	VAGGGTRNR	DWWP	: 23		
PEchKatG1	:	-----	-----	-----	-----	MSE	-----	CP	VAHKR	-----	-----	SN	VAGGGTRNT	DWWP	: 25		
MagKatG2	:	-----	-----	-----	-----	MHASLSSWLLAASLLTQP	I	SVSGQG	CP	FAKRDGTV	DSSLPQKR	ADAPETTT	FGRC	AVKSN	QAGGGTRSH	DWWP	: 73
CgraKatG2	:	-----	-----	-----	-----	MHAKLSNCLLAASAI-L	-L	PSVSAQG	CP	FAKRDGSV	SSELPKR	---	DTAATFGRCPTIS	N	EAGGGTRSR	DWWP	: 67
						e		CP				N	GGgT4n	DWWP			

PTS 2

		*	120	*	140	*	160	*	180	*	200							
CgKatG1	:	NQLRLN	ILRQHQPAS	SPYSKE	FDYAAAFK	SLDYEAL	LKKDIT	AVMTDSQD	WWPADFGHYGGL	FIRMAWHSAGTYRV	FDGRGGGS	QGQQR	FAPLNSWPDNVS	: 123				
CcochKatG1	:	NQLRLN	ILRQHQPAS	NPYNKE	FDYAAAFK	SLDYDAL	LKKDIA	AVMTDSQD	WWPADFGHYGGL	FIRMAWHSAGTYRV	FDGRGGGS	QGQQR	FAPLNSWPDNVS	: 123				
MthKatG1	:	NQLRLN	ILRQNQPAS	NPQ-KD	LDYAAAFK	SLDYEGL	LKKDLR	ALMTDSQD	WWPADFGHYGGL	FIRMAWHSAGTYRV	FDGRGGGS	QGQQR	FAPLNSWPDNVS	: 123				
TterKatG1	:	NRLPLH	ILRQHQPAS	SPY-KD	FDYRAAFK	SLDYDAL	KQDLR	ALMTDSQD	WWPADFGHYGGL	FIRMAWHSAGTYRV	FDGRGGGG	QGQQR	FAPLNSWPDNVS	: 122				
PanKatG1	:	NQLRLN	ILRQHTAAS	DPFHKE	FNYAAAFK	SLDYNAL	LKKDLT	DLMTNSQD	WWPADFGHYGGL	FIRMAWHSAGTYRV	FDGRGGGG	QGQQR	FAPLNSWPDNVS	: 126				
CtheKatG1	:	KQLRLN	ILRQHQPAS	NPYPKD	FDYAAAFK	SLDYEAL	KQDIK	AVLTDSDQ	WWPADFGHYGGL	FIRMAWHSAGTYRV	FDGRGGGG	QGQQR	FAPLNSWPDNVS	: 123				
MagKatG1	:	NTLKL	NILRQHT	TEATNP	YDPNFDY	AEAFK	SLDYEGL	LKKDLR	ALMTDSQD	EYWPADFGHYGGL	FVRMAWHSAGTYRV	MDGRGGGG	QGQQR	FAPLNSWPDNVS	: 123			
SmaKatG1	:	EQLKL	NILRQHT	PTVTN	PLDKD	FDYAAAFK	SLDYEGL	LKKDLT	SLMTDSKD	WWPADFGHYGGL	FIRMAWHSAGTYRV	MDGRGGGG	EGQQR	FAPLNSWPDNVS	: 123			
NtetKatG1	:	AQLRLN	ILRQHT	PTVSN	PLDKD	FDYAAAFK	SLDYEGL	LKKDLT	KLMTDSQD	WWPADFGHYGGL	FIRMAWHSAGTYRV	TDGRGGGG	EGQQR	FAPLNSWPDNVS	: 123			
MgKatG1	:	NELNTK	ILRQHTAAT	DPFGKQ	FDYPAAF	KSLDYNG	LKKDLN	DLMTDSKD	FWPADFGHYGGF	FVRMAWHSAGTYRV	ADGRGGGG	EGQQR	FAPLNSWPDN	AN	: 125			
F2E518_Hv	:	NDLKL	SILRQQP	SGNPY	TKD	FDYVAAF	KSLDYDAL	LKKDLT	ALMTDSQE	WWPADFGHYGGL	FIRMAWHSAGTYRV	FDGRGGGG	GGQQR	FAPLNSWPDNVS	: 125			
VdaKatG1L	:	NALKLN	ILRQHT	DVTN	PLGND	FDYAAAF	NSLDYNA	VKKDLK	DLMTDSQD	WWPADFGHYGGL	FVRMAWHSAGTYRV	FDGRGGGG	QGQQR	FAPLNSWPDNVS	: 128			
VaaKatG1	:	NALKLN	ILRQHT	DVTN	PLGSD	FDYAAAF	NSLDYNA	VKKDLK	DLMTDSQD	WWPADFGHYGGL	FVRMAWHSAGTYRV	FDGRGGGG	QGQQR	FAPLNSWPDNVS	: 128			
VdaKatG1V	:	NALKLN	ILRQHT	DVTN	PLGSD	FDYAAAF	NSLDYNA	VKKDLR	DLMTDSQD	WWPADFGHYGGL	FVRMAWHSAGTYRV	FDGRGGGG	QGQQR	FAPLNSWPDNVS	: 128			
CgraKatG1	:	NSLRLN	ILRQHT	PTVTN	PLGGD	FDYVS	AFKGLDYDA	IKKDLT	ALMTDSQE	WWPADFGHYGGF	FIRMAWHSAGTYRV	HDGRGGGG	EGQQR	FAPLNSWPDNVS	: 126			
ChigKatG1	:	NSLRLN	ILRQHT	PTVTN	PLGGD	FDYVS	AFKGLDYD	GIKKDLT	ALMTDSQE	WWPADFGHYGGF	FVRMAWHSAGTYRV	HDGRGGGG	EGQQR	FAPLNSWPDNVS	: 126			
MacrKatG1	:	ESVKLN	NVLRQNT	PTVTN	PFGE	FDYAAAF	KTLDYEAL	LKKDLT	ALMTDSQE	WWPADFGHYGGL	FIRMAWHSAGTYRV	FDGRGGGG	HAQQR	FAPLNSWPDNVS	: 123			
PEchKatG1	:	NSLKL	GILRQHT	DATNP	QTKD	FDYAAAF	KTLDYW	GLKKDL	HALMTDSQE	FWPADFGHYGGL	FIRMAWHSAGTYRV	FDGRGGGG	QGQQR	FAPLNSWPDNVS	: 125			
MagKatG2	:	CQLRLD	VLRQFQ	PSQN	NPLGGD	FDYAEAF	QSLDYEAV	VKKDIAA	LMTESQD	WWPADFGNYGGL	FVRMAWHSAGTYRAM	DGRGGGGM	GQQR	FAPLNSWPDN	QN	: 173		
CgraKatG2	:	CQLRLD	VLRQFQ	PSTNP	YGGD	FDYVKAF	S	SLDYDAL	LKADLRA	LLTESQD	WWPADFGHYGGL	FIRLCW	HSAGTYRAI	DGRGGGGM	GQQR	FAPLNSWPDN	QN	: 167
		6 1 6LRQ	P	f1Y	AF	LDY	6KkD6	66T Sq	5WPADFGHyGG1F6R6a	WHSAGTYRv	DGRGGGg	gQQR	FAPLNSWPDNvs					

		*	220	*	240	*	260	*	280	*	300				
CgKatG1	:	LDKARRLLWPVKQKYGD	KISWADLL	LLTGNVALES	MGFKTFGFAGGR	PDTWEADES	AYWGG	EKTWL	--GNDVRY	GQ	NEG	VAGQGV	VDGDESKKGHR	DIH	: 221
CcochKatG1	:	LDKARRLLWPVKQKYGD	NISWADLL	LLTGNVALES	MGFKTFGFAGGR	PDTWEADES	AYWGG	EKTWL	--GNDVRY	SH	NEG	VAAGGV	VDGDESKKGHR	DIH	: 221
MthKatG1	:	LDKARRLLWPVKQKYGD	KISWADLL	LLTGNVALES	MGFKTFGFAGGR	PDTWEADES	AYWGG	EKTWL	--GNDVRY	SQ	REG	VAGQGV	VDGDESKKGHR	DIH	: 221
TterKatG1	:	LDKARRLLWPIKQKYGDKISWADLL	LLTGNVALES	MGFKTFGFAGGR	PDTWEADES	AYWGG	EKTWL	--GNDVRY	SD	GQAGI	AGDGV	TGGDESKKVNK	DIH	: 220	
PanKatG1	:	LDKARRLLWPIKQKYGNKISWADLL	LLTGNVALES	MGFKTFGFAGGR	PDTWEADES	AYWGG	EKTWL	--GNEARY	AH	QEG	IAGKGI	VSGDESKKNHT	DIH	: 224	
CtheKatG1	:	LDKARRLLWPVKQKYGD	KISWADLL	LLTGNVALES	MGFKTFGFAGGR	PDTWEADES	AYWGG	EKTWL	--GNEVRY	AN	-----	-----	KDIK	: 201	
MagKatG1	:	LDKARRLLWPIKQKYGNKISWADLL	LLTGNVALES	MGFKTFGFAGGR	PDTWEADES	AYWGG	EKTWL	--GNEVRY	SS	NEG	HKESGV	IDGSESKKGHK	DIH	: 221	
SmaKatG1	:	LDKARRLLWPIKQKYGNKISWADLL	LLTGNVALES	MGFKTFGFAGGR	PDTWEADES	AYWGG	EKTWL	--GNEDRY	AE	QEG	PKGHGV	VQGDSESKKDHK	DIH	: 221	
NtetKatG1	:	LDKARRLLWPIKQKYGNKISWADLL	LLTGNVALES	MGFKTFGFAGGR	PDTWEADES	AYWGG	EKTWL	--GNEDRY	SE	QEG	HEGHGV	VQGDSESKKQHT	DIH	: 221	
MgKatG1	:	LDKARRLLWPIKQKYGNKISWADLL	LLTGNVALES	MGFKTFGFAGGR	PDTWEADES	AYWGG	EKTWL	--GNEVRY	SD	GKEGL	TGDGIL	DGDQSKKQHT	DIH	: 222	
F2E518_Hv	:	LDKARRLLWPIKQKYGNKISWADLL	LLTGNVALES	MGFKTFGFAGGR	PDTWEADES	AYWGG	EKTWL	--GNEVRY	ANG	KEGV	SGHGV	VDGDEHKKGHS	DIH	: 223	
VdaKatG1L	:	LDKARRLLWPIKQKYGNKISWADLL	LLTGNVALES	MGFKTFGFAGGR	PDTWEADES	AYWGG	EKTWL	--GNDVRY	SG	GKGD	KGPGSL	VTDEG--	HDKSTH	: 224	
VaaKatG1	:	LDKARRLLWPIKQKYGNKISWADLL	LLTGNVALES	MGFKTFGFAGGR	PDTWEADES	AYWGG	EKTWL	--GNDVRY	SG	GKGD	KGPGSL	VTDEG--	HDKSTH	: 224	
VdaKatG1V	:	LDKARRLLWPIKQKYGNKISWADLL	LLTGNVALES	MGFKTFGFAGGR	PDTWEADES	AYWGG	EKTWL	--GNDVRY	SG	GKGD	KGPGSL	VTDEG--	HDKSTH	: 224	
CgraKatG1	:	LDKARRLLWPIKQKYGNKISWADLL	LLTGNVALES	MGFKTFGFAGGR	PDTWEADES	AYWGG	EKTWL	--GNDVRY	SH	GHRG	KADSGV	VDGSQS--	TKSDIH	: 222	
ChigKatG1	:	LDKARRLLWPIKQKYGNKISWADLL	LLTGNVALES	MGFKTFGFAGGR	PDTWEADES	AYWGG	EKTWL	--GNDVRY	AH	GAG	KADSGV	LDGSQATKAKS	DIH	: 224	
MacrKatG1	:	VDKARRLLWPIKQKYGNKISWADLL	LLTGNVALES	MGFKTFGFAGGR	PDTWEADES	AYWGG	EKTWL	--GNDVRY	ND	-----	-----	-----	NKDVK	: 202	
PEchKatG1	:	LDKARRLLWPIKQKYGNKISWADLL	LLTGNVALES	MGFKTFGFAGGR	PDTWEADES	AYWGG	EKTWL	--TNKARY	EA	ETAE	EEEEAK	-----	QGNIK	: 212	
MagKatG2	:	LDKARRLLWPIKQKYGNKISWADLL	LLTGNVALES	MGFKTFGFAGGR	PDTWEADES	AYWGG	EKTWL	--GNDVRY	NN	-----	-----	-----	SVDIN	: 254	
CgraKatG2	:	LDKARRLLWPIKQKYGNKISWADLL	LLTGNVALES	MGFKTFGFAGGR	PDTWEADES	AYWGG	EKTWL	--GNDVRY	NG	-----	-----	-----	STDI	: 248	

6DKARRLL6WP6KQKYG1kISWADL 6LtGNvA6esMgfkT GFagGR D 52aDes 5WG E t5 gn vRY

			*	320	*	340	*	360	*	380	*	400		
CgKatG1	:	SRD	--	LESPLAAAHMGLIYVNPEGPDGI	PDPVAA	GRDIR	TFGRMAMNDEETVALIAGGHTFGKTHGA	APAVN	VSKEPE	AAPLE	QQGL	GSNKHGT	GKGP : 319	
CcochKatG1	:	SRD	--	LESPLAAAHMGLIYVNPEGPDGI	PDPVAA	GRDIR	TFGRMAMNDEETVALIAGGHTFGKTHGA	APAVN	VSKEPE	AAPLE	QQGL	GSNKHGS	GKGP : 319	
MthKatG1	:	TRD	--	LETPLAAAHMGLIYVNPEGPDGI	PDPLAA	AARDIR	TFGRMAMNDEETVALIAGGHTFGKTHGA	AHSDN	VGPEPE	AAPLE	QQGL	GSNKHGS	GKGP : 319	
TterKatG1	:	SRD	--	LESPLAAAHMGLIYVNPEGPDGI	PDPVAA	AARDIR	TFSRMAMNDEETVALIAGGHTFGKTHGA	APSDN	VGKEPE	GAGLE	QQGL	GWANKHGS	GKGP : 318	
PanKatG1	:	NRD	--	LESPLAAAHMGLIYVNPEGPDGN	PDPVAA	AARDIR	TFGRMAMNDEETVALIAGGHTFGKTHGA	APADN	VGAEPE	AASIE	QQGF	GSNKGYS	GKGP : 322	
CtheKatG1	:	NRE	--	LETPLAAAHMGLIYVNPEGPDGN	PDPVAA	AARDIR	TFGRMAMNDEETVALIAGGHTFGKTHGA	GPTDN	VGKEPE	AAPIE	EQGF	GSNKFYS	GKGP : 299	
MagKatG1	:	TRD	--	LEKPVSAAHMGLIYVNPEGPDGI	PDPVAA	AARDIR	TFSRMAMNDEETVALIAGGHTFGKTHGA	APSDN	VGPEPE	AAPIE	EQGL	GSNKHGS	GKGP : 319	
SmaKatG1	:	TRD	--	LQNPLAAAHMGLIYVNPEGPDGI	PDPVAS	AKDIR	TFGRMAMNDEETVALIAGGHTFGKTHGA	GPTHH	VGKEPE	AAPIE	QQGL	GWANSFGQ	GKGP : 319	
NtetKatG1	:	NRD	--	LQSPLASSHMGLIYVNPEGPDGI	PDPVAS	AKDIR	TFGRMAMNDEETVALIAGGHSFGKTHGA	GPTHH	VGKEPE	AAPIE	EQGL	GWANSFGQ	GKGP : 319	
MgKatG1	:	GRE	--	MEEPIAAAHMGLIYVNPEGPDGK	PDPVAS	AARDIR	TFGRMAMNDAETVALIAGGHA	FGKTHGA	GPTDN	VGKEPN	GAASIE	EQGL	GWKNQYKDGKGP : 320	
F2E518_Hv	:	SRE	--	LEEPLAAAHMGLIYVNPEGPDGI	PDTKAS	AARDIR	TFGRMAMNDEETVALIAGGHTFGKTHGA	GPSDN	VGKEPE	AAEIE	LQGF	GWQNKFKS	GKGP : 321	
VdaKatG1L	:	TRG	--	LQKPLGAAAHMGLIYVNPEGPDGN	PDPVAAA	HDIR	TFSRMAMNDEETVALIAGGHSFGKTHGA	GPNDK	IGAEPE	GASLE	AQGF	GWQNGYKS	GKGP : 322	
VaaKatG1	:	TRD	--	LQKPLGAAAHMGLIYVNPEGPDGN	PDPVAAA	HDIR	TFGRMAMNDEETVALIAGGHSFGKTHGA	GPNDK	IGAEPE	GASLE	AQGF	GWQNGYKS	GKGP : 322	
VdaKatG1V	:	TRD	--	LQKPLGAAAHMGLIYVNPEGPDGN	PDPVAAA	HDIR	TFGRMAMNDEETVALIAGGHSFGKTHGA	GPNDK	IGAEPE	GAPLE	AQGF	GWQNGYKS	GKGP : 322	
CgraKatG1	:	SRD	--	LESPLGAAAHMGLIYVNPEGPDGN	PDPVAA	AARDIR	TFGRMAMNDEETVALIAGGHSFGKTHGA	APDSN	VGPEPE	AAGLE	AQGL	GWHNKHGS	GKGP : 320	
ChigKatG1	:	SRE	--	LESPLGAAAHMGLIYVNPEGPDGN	PDPVAA	AARDIR	TFGRMAMNDEETVALIAGGHSFGKTHGA	APDSN	VGPEPE	GAGLE	QQGL	GWVNKHGS	GKGP : 322	
MacrKatG1	:	KRD	--	LESPLAASHMGLIYVNPEGPDGN	PDPVAA	AARDIR	TFGRMAMNDEETVALIAGGHTFGKTHGA	GPATN	VGKEPE	GAPIE	QQGL	GWKSTYGT	GKGP : 300	
PEchKatG1	:	TRD	--	LEDPLAAAVVMGLIYVNPEGPDGNG	DPLSA	AARDIR	TFGRMAMNDEETVALIAGGHTFGKTHGA	APADN	VGTEPE	AAGIE	SQGL	GWHNKHGS	GVGP : 310	
MagKatG2	:	ARADK		LEKPLAATHMGLIYVNPEGPNGT	PDPAAS	AKDIRE	AFGRMG	MNDTET	VALIAGGHA	FGKTHGA	VKGSN	IGPAPE	AADLGMQGL	GWHNSVGDNGNP : 354
CgraKatG2	:	ERADK		LEKPLASTNMGLIYVNPEGPDGSS	NPAAS	ANDIR	TAHHRMG	MNDS	ETVALIAGGHA	FGKTHGA	VSDN	IGPEPE	AASIGEMGL	GWHNSVGDNGNV : 348
		R		62 P6 a hMGLIYVNPEGP1G	p1p	a a DIR	tFgRMaM1De	ETVALIAGGH	fGKTHGA	p	6g ePe	A 6e qG	GW n GkGp	

		*	420	*	440	*	460	*	480	*	500				
CgKatG1	:	DTITSGLEVI	IWKETPTK	WTHNFF	FEYLFKF	EWELTK	SPAGANQWVAKN	TEPII	IPDAFD	PNKKHL	PRMLTTDL	ALRFDP	EYEKISRRFLEN	PDQ-FADAFAR	: 418
CcochKatG1	:	DTITSGLEVI	IWKETPTK	WTHNFF	FEYLFKF	EWELTK	SPAGANQWVAKN	SEPII	IPDAYD	PNKKHL	PRMLTTDL	ALRFDP	EYEKISRRFLEN	PDQ-FADAFAR	: 418
MthKatG1	:	DTITSGLEVI	IWKETPTK	WNHNFF	FEYLFKF	EWELTK	SPAGANQWVAKN	TDDAFI	IPDPYD	PNKKHK	PRMLTTDL	ALRFDP	VYEKISRRFLEN	HPDQ-FADAFAR	: 418
TterKatG1	:	DTITSGLEVI	IWKETPTR	WSTNFF	FEYLFKF	EWELTK	SPAGANQWVAKN	NADAFI	IPDAYD	PSKKHR	PRMLTTDL	ALRFDP	VYEKIARHYLEH	HPDQ-FADAFAR	: 417
PanKatG1	:	DTITSGLEVI	IWKNTPTK	WTNQFF	FEYLFKY	EWELTK	SPAGANQWVAKN	NAEPFI	IPDAYD	PNKKHL	PRMLTTDL	SLRFD	PGFEKISRRFLEN	HTDQ-FADAFAR	: 421
CtheKatG1	:	DTITSGLEVI	IWKETPTQ	WSTNFF	FEYLFKF	DWELTK	SPAGANQWVAKN	NAEAFI	IPDPYD	PSKKHP	PRMLTTDL	ALRFDP	VYEKISRRFLEN	HPDE-FADAFAR	: 398
MagKatG1	:	DTITSGLEVI	IWKETPAK	FTMNYL	FEYLFKY	EWELTK	SPAGANQWVAKN	NAEEFI	IPDAFD	PSKKHK	PRMLTTDL	SLRFD	EYEKISRRFLEN	PEQ-FKDAFAR	: 418
SmaKatG1	:	DTITSGLEV	TWPTPTK	WGMGYL	FEYLYKF	EWELTK	SPAGANQWVAKN	NAEPSI	IPDAYD	PNKKKL	PTMLTTDL	ALRMD	PAYDKICRDFLAN	PNK-FADAFAR	: 418
NtetKatG1	:	DTITSGLEV	TWPTPTK	WGMGYL	FEYLYKF	DWELTK	SPAGANQWVAKN	NAEPTI	IPDAYD	PNKKKL	PTMLTTDL	ALRMD	PAYDKICRDYLAN	PDK-FADAFAR	: 418
MgKatG1	:	NAITSGLEVI	IWTSTPTK	WSNKYL	LEYMFKY	EWELTK	SPAGAHQWTA	KTDDEII	IPDAYD	STKKHK	PTMLTSDL	ALRFD	EYEKISR	DYLENPDQ-LADAFTR	: 419
F2E518_Hv	:	DTITSGLEV	TWTKTPTK	WSNQYF	FEYLFKY	EWELTK	SPAGANQWVAKN	NAEPII	IPHAYD	ANKKKQL	PTMLTTDL	ALIHDP	EYRKISERFLKN	PDQ-FADAFAR	: 420
VdaKatG1L	:	DTITSGLEV	TWATPTK	WSNKYF	FEYLFKY	EWELTK	SPAGANQWVAKN	TDDEII	IPDAYD	SSKKHR	PTMLTTDL	SLMRFD	EYEKISRRFLEN	PDQ-FADVAFAR	: 421
VaaKatG1	:	DTITSGLEV	TWATPTK	WSNKYF	FEYLFKY	EWELTK	SPAGANQWVAKN	TDDEII	IPDAYD	SSKKHR	PTMLTTDL	SLMRFD	EYEKISRRFLEN	PDQF-FADAFAR	: 422
VdaKatG1V	:	DTITSGLEV	TWATPTK	WSNKYF	FEYLFKY	EWELTK	SPAGANQWVAKN	TDDEII	IPDAYD	SSKKHR	PTMLTTDL	SLRFD	EYEKISRRFLEN	PDQ-FADAFAR	: 421
CgraKatG1	:	DTITSGLEV	TWATPTK	WSNKYF	FEYLFKF	DWELTK	SPAGANQWVAKN	NAEPII	IPDAYD	PNKKHL	PTMLTTDL	SLRFD	EYEKISRRFLEN	PDQ-FADAFAR	: 419
ChigKatG1	:	DTITSGLEV	TWATPTK	WSNKYF	FEYLFKY	DWELTK	SPAGANQWVAKN	NAEPII	IPHAYD	PNKKQL	PTMLTTDL	SLRFD	EYEKISRRFLEN	PDQ-FADAFAR	: 421
MacrKatG1	:	DTITSGLEVI	IWKTPVQ	WSHNYF	FOYLFKY	EWELTK	SPAGANQWVAKN	TDDEII	IPDAFD	ANKKKH	PRMLTTDL	SLRFD	EYEKISRRFLEN	PDQ-FADAFAR	: 399
PEchKatG1	:	HAITSGLEV	TWSTPTK	WSNSFL	DYLFKF	EWELTK	SPAGATQWVAKN	NAGDIV	IPDAFD	SSKKHR	PHMLTTDL	SLRYDP	AYEKISRRFLEN	PDE-FADAFAR	: 409
MagKatG2	:	NQMTSGLEVI	IWKETPTK	WSNGYL	ESLINN	NWTLVE	SPAGAHQWEA	VNGTVDY	PDPFDKT	KFRKAT	MLTSDL	ALIND	PEYLKISQRWLEH	PDE-LADAFAR	: 453
CgraKatG2	:	NQMTSGLEVI	IWKETPTK	WSNDYL	ESLLHN	KWTLVT	SPAGHHQWEA	VNGTLDY	PDPFDAT	KFRKAT	MLTSDL	ALIND	PSYLNITTRWVDH	PDE-LADAFAR	: 447
		t6TSGLEV	WT	Pt 5	5	y6 k	WeltkSPAGanQWvAk		Pda5D	Kk	p	MLT3D6	6r	DP 5 kI rr56e p	faDaFa4

		*	520	*	540	*	560	*	580	*	600											
CgKatG1	:	AWFKLL	HRDLGPRS	SRWL	GPEIPSE	EVLL	IWEDPVP	AVNHP	LVDEQDV	TTLKRA	ILAT	-GVAPAKL	ISTAWASAST	FRGG	DKRGG	ANGARIRL	APQKDW	KVNN	:	517		
CcochKatG1	:	AWFKLL	HRDLGPRS	SRWL	GPEIPA	EVLL	IWEDPVP	AVNHP	LVDDQDV	TALKRD	ILAT	-GIAPANL	ISTAWASAST	FRGG	DKRGG	ANGARIRL	APQKDW	EVNN	:	517		
MthKatG1	:	AWFKLL	HRDMGPRS	SRWL	GPEIPA	EVLL	IWEDPIPP	VNHP	LVDDKD	IAALKH	DILAT	-GVAPHKL	ISTAWASAST	FRGS	DKRGG	ANGARIRL	APQKDW	EVNN	:	517		
TterKatG1	:	AWFKLL	HRDMGPRS	SRWL	GPEIPSE	EVLL	IWEDYVPP	VDHPL	VDDSD	IAALKR	DILAT	-GVAPAKL	ISVAAWASAST	FRGS	DKRGG	ANGARIRL	APQKDW	KVNN	:	516		
PanKatG1	:	AWFKLL	HRDMGPRS	SRWL	GPEIPSE	EVLL	IWEDPLPL	DHP	VIDNND	IAAIKRE	ILAT	-GLAPQKL	ISTAWASAST	FRGS	DKRGG	ANGARIRL	APQKDW	KVNN	:	520		
CtheKatG1	:	AWFKLL	HRDMGPR	TRWL	GPEIPSE	EVLL	IWEDYIPP	VDP	VIDDAD	VAAIKQ	TILAT	-GIAPHKL	ISTAWASAST	FRGS	DKRGG	ANGARIRL	APQKDW	EVNN	:	497		
MagKatG1	:	AWFKLL	HRDMGPRS	SRWL	GPEVPKE	ETLL	IWEDPIPT	PDHP	IIDGSD	VDSLKKA	ILAT	-GVAPSKL	IQTAWASAST	FRGG	DKRGG	ANGARIRL	EPQNKW	EVNN	:	517		
SmaKatG1	:	AWFKLL	HRDMGPR	TRWIG	PEVPSE	EVLL	IWEDYIPP	VDP	VIDDND	IAALKKE	ILAT	-GVAPKKL	IFVAWSSAST	FRGS	DKRGG	ANGARIRL	APQNEW	KVND	:	517		
NtetKatG1	:	AWFKLL	HRDMGPR	TRWIG	PEVPSE	EVLL	IWEDYIPP	VDP	VIDDND	IAALKKE	IMAT	-GVAPKKL	IFVAWSSASS	FRGS	DKRGG	ANGARIRL	APQNEW	KVND	:	517		
MgKatG1	:	AWFKLL	HRDMGPRS	SRWVG	PEIPKE	EVLL	IWEDPVP	SVNHP	LVDEKD	VAAIKKA	IAT	-GVEPTAL	ISAAWASASSY	FRGS	DKRGG	ANGARVRL	EPQKDW	KVNN	:	518		
F2E518_Hv	:	AWFKLL	HRDLGPRS	SRWVG	PELPSE	EVLL	IWEDPVP	AVDHP	LIDEKD	AASLKKE	ILAT	-GVEPTKL	IRTAWASAST	FRGS	DKRGG	ANGARIRL	APQKDW	KANN	:	519		
VdaKatG1L	:	AWFKLL	HRDLGPK	ARYLG	PEIPA	EDLL	IWQDP	IPAVDHP	LIDES	IAALKKE	ILSS	-GPEPSQF	ISLVW	GASS	FFSRQR	RGDVNG	ARIRL	ALQKDW	EVYI	:	521	
VaaKatG1	:	AWFKLL	HRDLGPK	ARYLG	PEIPA	EDLL	IWQDP	IPAVDHP	LIDES	IAALKKE	ILSS	-GPEPSQF	ISLVW	GASS	FFSRQR	RGDVNG	ARIRL	ALQKDW	EVYI	:	521	
VdaKatG1V	:	AWFKLL	HRDLGPK	ARYLG	PEIPA	EDLL	IWQDP	IPAVDHP	LIDES	IAALKKE	ILSS	-GPEPSQF	ISLVW	GASS	FFSRQR	RGDVNG	ARIRL	ALQKDW	EVYI	:	520	
CgraKatG1	:	AWFKLL	HRDMGPRS	SRVVG	PEVPSE	EEFI	IWQDPIPT	PNHP	LVNEQD	AASLKKE	ILGT	-GIDPSKL	ISTAWASAST	FRGS	DKRGG	ANGARIRL	APQKDW	EVNN	:	518		
ChigKatG1	:	AWFKLL	HRDMGPRS	SRVVG	PEVPSE	EDFI	IWQDPI	PAPNHP	LINEQD	AASLKKE	ILGT	-GIDPSKL	VSTAWASAST	FRGS	DKRGG	ANGARIRL	APQKDW	EVNN	:	520		
MacrKatG1	:	AWFKLL	HRDMGPK	TLVYG	PEVPT	EDLL	IWQDPIPP	VNYQL	IIDDKD	AAAIKEE	ILKS	-GIDTSKL	VSTAWASAST	FRGS	DKRGG	ANGARIRL	SPQKDW	KVNN	:	498		
PEchKatG1	:	AWFKLL	HRDMGPR	ARWL	GPEIPKE	VSLL	IWEDPI	PAPTYAL	IDNGDI	IAALKNE	ILSA	-GIEPTKL	IATAWASAST	FRGG	DKRGG	ANGA	HIRL	APQKDW	EVNN	:	508	
MagKatG2	:	AWFKLL	HRDLGPT	TRYLG	PEVPKE	SFII	WQDPLP	AREGD	LIDDAD	VDKLKA	AILST	TDGLDV	SKLAST	AMACATTY	RNS	DKRGG	CNGAR	IALEPQR	NWVS	NN	:	553
CgraKatG2	:	AWFKLL	HRDMGPR	ARYLG	PEVPQ	ETFI	WQDPLP	AREGD	LMDDAD	VATL	KSTIL	AVPGLDV	SKLASV	AAWASAST	FRGS	DKRGG	ANGAR	IALEPQ	VNWV	ANN	:	547
		AWFKLL	HRD6GP	r56GPE	6P E		W2Dp6P	661 D	6K I6	G p	l	aw sa3	5rg	dkRGGa	NGAr6rL	pQ	w vn					

		*	620	*	640	*	660	*	680	*	700						
CgKatG1	:	PPQLAEVL	KALEGVQAQ	FNGASQS-	KKVSLADLIVL	GGVAALEQAAG	-----	VSVPFTPGR	TASQEQT	EVESFAH	LEPHVDGFR	SYGRGTSRV	STEQFL	: 611			
CcochKatG1	:	PTQLAEVL	KALEGVQAK	FNGAAQGG	KKVSLADLIVL	GGVAALEQAAG	-----	IAVPFTPGR	TASQEQT	EVESFAH	LEPHVDGFR	SYGRGTSRV	STEQFL	: 612			
MthKatG1	:	PPQLAEVL	KALEGVQAA	FNASAPGG	KKVSLADLIVL	GGVAALEQAAG	-----	VPVPFSPGR	TASQEQT	DVESFQH	LKPFADGFR	NYGRGTSRV	TTEQLL	: 612			
TterKatG1	:	PPQLAEVL	QALEGVQAK	FNASAAAG	KKVSLADLIVL	GGVAALEQAAG	-----	VPVPFRPGR	TASQEQT	DVASFAH	LEPYADGFR	NYGRGTARV	PTQHLL	: 611			
PanKatG1	:	PAQLAEVL	GALQEDVQKR	FNEQATGG	KKVSLADVIVL	GGVAALEQAAG	-----	VSVPFTPGR	TASQEQT	DVHSFEH	LEPYADGFR	NYGHGNDRV	KTEQYL	: 615			
CtheKatG1	:	PAQLAEVL	SALEAVQAQ	FNSTAPGG	KKVSLADLIVL	GGVAALEQAAG	-----	VPVPFTPGR	NDITQEY	TEVESFSY	LEPVADGFR	NYGRGTD	RVRTQLL	: 592			
MagKatG1	:	PQQLAEVL	KALEGVKAD	FE--KSG	KKVSIADLIVL	AGVAAVEQAAG	-----	VPVPFTPGR	GDATEQE	QTDVESF	THLEPAAD	AFRNYGK	GTSRV	TTEQIM	: 609		
SmaKatG1	:	PATLREVL	SALESIQKQ	FNNS-SSG	KKVSLADLIVL	GGVAALEQAAG	-----	LVVPFTPGR	NDATQE	QTDVHSF	GHLEPY	ADGFR	SYGKGT	ERV	RTQFL	: 611	
NtetKatG1	:	PSTLREVL	AALESVQKQ	FNDS-SSG	KKVSLADLIVL	GGVAALEQAAG	-----	LVVPFTPGR	NDATQE	QTDVHSF	THLEPH	ADGFR	SYGKGT	KRV	RTQFL	: 611	
MgKatG1	:	PSQLSKTL	SALEGVQKD	FNAS-SGS	KKVSLADLIVL	AGSAGIEKTS	-----	VHVPFTPGR	TDATEQE	QTDVHSF	THLEPK	VDGFR	NYGKGT	ERV	RAEQCL	: 612	
F2E518_Hv	:	PTDLAEVL	KALEGVQKQ	FNS--GS	KKVSLADLII	LAGNAAIEKAS	-----	ASVPFTPGR	TDATEE	QTDVHSF	THLEPV	VDAFR	NYGKGT	KRV	RTQFF	: 611	
VdaKatG1L	:	PAQLAKVL	QALEGVQKS	FNDAQQGG	KKVSLADLIVL	AGNAAVEKA	ASAAGHS	MTVPFTPGR	GDATEQE	QTDIESV	SHLEPF	ADGFR	NYGHST	DRV	KTEQFL	: 620	
VaaKatG1	:	ARPAVQGM	QALEGXX	-----	-----	-----	HS-----	MTVPFTPGR	GDATEQE	QTDIESV	SHLEPF	ADGFR	NYGHST	DRV	KTEQFL	: 586	
VdaKatG1V	:	PAQLAKVL	QALEGVQKS	FNDAQQGG	KKVSLADLIVL	AGNAAVEKA	ASAAGHS	MTVPFTPGR	GDATEQE	QTDIESV	SHLEPF	ADGFR	NYGHST	DRV	KTEQFL	: 620	
CgraKatG1	:	PRQLAEVL	KALESVQKQ	FNSSASGG	KKISLADLIVL	AGAAGVEQA	ARNAGYD	ITVPFTPGR	GDATEQE	QTDIESV	DHLQPF	ADGFR	NYGKST	DR	AKTEHYL	: 618	
ChigKatG1	:	PRQLAEVL	KALEGVQKQ	FNSSSSGG	KKVSLADLIVL	AGAAGVEQA	AKNAGYD	ITVPFTPGR	GDATEQE	QTDIESV	DHLQPF	ADGFR	NYGKST	DR	AKTEHYL	: 620	
MacrKatG1	:	PAQLSQVL	ATLEDIQK	RNFQS--G	KTVSLADVIVL	AGVAGVEKA	ARDAGVNI	TVPFTPGR	NDATQE	QTDVESV	GYLEPL	ADGFR	NYGKSH	GSV	KQEHLL	: 595	
PEchKatG1	:	PAQLQEV	LGLLESIQ	GRFNKAQNGE	KRVSIADLIVL	AGSAALERA	AAG-----	IPVPFTPGR	NDATQE	QTDVESF	GWLRPF	ADGFR	NYGNSTR	RRV	RTQLL	: 603	
MagKatG2	:	PTQLSAVL	DALKKVQSD	FNGS-NGN	KKVSLADLIVL	GGTAAVEKA	AKDAGVD	IKVPFS	AGRVDAT	QEQT	DVTQFSY	LEPQ	ADGFR	NYGRGT	TAR	ARTEEIM	: 652
CgraKatG2	:	PTQLSAVL	DALKKVQAD	FN---TGS	KKVSLADLIVL	GGTAAVEKA	AADAGVK	TVPFAPGR	VDATQD	QTDIESF	GYLEPQ	ADGFR	NYGRGT	TAR	ARTEEFL	: 644	
		p q l	v 6 a l e	q f n	k s a d i l	g a e a		V P F	p G R	D a 3 2 e q T d	s	L P	a D g F R n Y G	t r v t E			

		*	720	*	740	*	760	*	780	*	800																																																																																											
CgKatG1	:	V	D	R	A	H	L	L	T	L	T	P	P	E	L	A	V	L	V	G	G	L	R	M	L	G	A	N	Y	D	G	S	S	N	G	V	F	T	T	R	P	G	K	L	T	N	D	Y	F	V	N	L	L	D	M	A	T	A	K	S	V	D	G	-	-	E	V	F	E	G	N	D	R	K	T	G	E	K	K	W	T	G	T	R	A	D	L	V	F	G	A	H	A	E	L	R	A	I	S	E	: 709	
CcochKatG1	:	V	D	R	A	H	L	L	T	L	T	P	P	E	L	A	V	L	I	G	G	L	R	M	L	G	A	N	Y	D	G	S	S	N	G	V	F	T	T	R	P	G	K	L	T	N	D	Y	F	V	N	L	L	D	M	G	T	A	K	S	V	D	G	-	-	E	V	F	E	G	S	D	R	K	T	G	E	K	K	W	T	G	T	R	A	D	L	V	F	G	A	H	A	E	L	R	A	I	S	E	: 710	
MthKatG1	:	V	D	R	A	Q	L	L	T	L	T	P	P	E	L	T	V	L	V	G	G	L	R	M	L	G	A	N	Y	D	G	S	S	H	G	V	F	T	T	R	P	G	K	L	T	N	D	F	F	V	N	L	L	D	T	G	V	A	K	S	I	D	G	-	-	E	L	F	E	G	T	D	R	K	T	G	E	K	K	W	T	G	T	R	A	D	L	I	F	G	A	H	A	E	L	R	A	I	S	E	: 710	
TterKatG1	:	V	D	R	A	Q	L	L	T	L	T	P	P	E	L	T	V	L	V	G	G	L	R	M	L	G	A	N	Y	D	G	S	S	H	G	V	F	T	T	R	P	G	K	L	T	N	D	F	F	V	N	L	L	D	M	R	T	A	K	S	V	D	G	-	-	E	L	F	E	G	T	D	R	A	T	G	A	K	K	W	T	A	T	R	A	D	L	V	F	G	S	H	A	E	L	R	A	I	S	E	: 709	
PanKatG1	:	V	D	R	A	H	L	L	T	L	T	A	P	E	L	A	V	L	V	G	G	L	R	M	L	G	A	N	Y	D	G	S	D	H	G	V	F	T	A	Q	P	G	K	L	T	N	D	F	F	V	N	L	L	D	P	N	T	E	W	T	N	V	D	G	K	G	E	V	F	E	G	K	D	R	A	T	G	Q	K	K	W	T	G	T	R	A	D	L	I	F	G	S	H	S	E	L	R	A	I	S	E	: 715
CtheKatG1	:	V	D	R	A	H	L	L	T	L	T	P	P	E	M	T	V	L	V	G	G	L	R	M	L	G	A	N	W	D	G	S	T	H	G	V	F	T	K	R	P	G	Q	L	T	N	D	F	F	V	N	L	L	D	M	S	T	A	W	R	S	I	D	G	-	-	E	I	F	E	G	Y	D	R	K	T	G	E	K	K	W	T	A	T	R	V	D	L	I	F	G	S	H	A	E	L	R	A	I	S	E	: 690
MagKatG1	:	V	D	R	A	Q	Q	L	L	T	L	A	P	E	L	T	V	L	V	G	G	L	R	M	L	G	A	N	Y	D	G	S	S	H	G	V	M	T	D	K	P	G	K	L	T	N	D	F	F	V	T	L	L	D	P	Y	T	S	W	K	S	V	D	G	-	-	E	V	F	E	G	T	N	S	K	S	G	-	K	K	L	T	G	T	R	A	D	L	V	F	G	S	H	S	E	L	R	A	L	A	E	: 706
SmaKatG1	:	I	D	R	A	S	L	L	T	L	S	A	P	E	F	T	A	L	I	G	G	L	R	M	L	E	A	N	Y	D	G	S	S	H	G	V	L	T	K	T	P	G	K	L	T	N	D	F	F	V	N	L	L	D	T	N	T	A	W	K	K	A	D	N	E	G	E	L	F	I	G	Y	D	R	K	T	H	D	K	K	W	T	A	T	R	A	D	L	I	F	G	S	H	A	E	L	R	A	L	A	E	: 711
NtetKatG1	:	I	D	R	A	S	L	L	T	L	S	A	P	E	L	T	A	L	I	G	G	L	R	M	L	E	A	N	Y	D	G	S	S	Y	G	V	L	T	K	T	P	G	K	L	T	N	D	F	F	V	N	L	L	D	T	N	T	A	W	K	A	A	D	N	E	G	E	V	F	I	G	Y	D	R	K	T	H	D	K	K	W	T	A	T	R	A	D	L	I	F	G	A	H	A	E	L	R	A	L	A	E	: 711
MgKatG1	:	I	D	K	A	H	L	L	T	L	T	A	P	E	M	T	A	L	V	G	G	L	R	S	L	N	Q	N	F	D	G	S	K	H	G	V	F	T	E	R	P	G	V	L	S	N	D	F	F	V	N	L	L	D	S	N	I	D	W	K	A	T	G	D	-	-	E	T	Y	E	G	V	E	R	S	S	G	Q	K	K	W	T	A	T	R	H	D	L	V	F	G	S	H	P	E	L	R	A	V	S	E	: 710
F2E518_Hv	:	V	D	K	A	H	L	L	T	L	T	A	P	E	A	T	V	L	V	G	G	L	R	A	L	N	A	N	W	D	G	S	S	Y	G	V	F	T	Q	R	P	G	Q	L	T	N	D	F	F	I	N	L	L	D	I	N	T	A	W	K	A	S	D	G	S	N	E	V	F	E	G	G	D	R	K	T	G	S	K	K	W	T	A	T	R	H	D	L	I	F	G	S	H	P	E	L	R	A	I	S	E	: 711
VdaKatG1L	:	V	D	R	A	H	L	L	T	L	S	A	A	E	L	T	A	L	V	G	G	L	R	M	L	N	T	N	Y	D	G	S	Q	H	G	V	L	T	K	R	P	G	Q	L	S	N	D	F	F	V	N	L	L	D	M	S	T	A	W	K	A	T	G	S	D	D	E	L	F	E	G	S	D	R	K	T	G	D	K	R	W	T	A	T	R	A	D	L	V	F	G	S	H	A	E	L	R	A	L	A	E	: 720
VaaKatG1	:	V	D	R	A	H	L	L	T	L	S	A	P	E	L	T	A	L	V	G	G	L	R	M	L	N	T	N	Y	D	G	S	Q	H	G	V	L	T	K	R	P	G	Q	L	S	N	D	F	F	V	N	L	L	D	M	S	T	A	W	K	A	T	G	S	D	D	E	L	F	E	G	S	D	R	K	T	G	D	K	R	W	T	A	T	R	A	D	L	V	F	G	S	H	A	E	L	R	A	L	A	E	: 686
VdaKatG1V	:	V	D	R	A	H	L	L	T	L	S	A	P	E	L	T	A	L	V	G	G	L	R	M	L	N	T	N	Y	D	G	S	Q	H	G	V	L	T	K	R	P	G	Q	L	S	N	D	F	F	V	N	L	L	D	M	S	T	A	W	K	A	T	G	S	D	D	E	L	F	E	G	S	D	R	K	T	G	D	K	R	W	T	A	T	R	A	D	L	V	F	G	S	H	A	E	L	R	A	L	A	E	: 720
CgraKatG1	:	V	D	R	A	H	L	L	T	L	T	A	P	E	L	T	V	L	L	G	G	L	R	M	L	N	T	N	F	D	G	S	S	T	G	V	F	T	S	R	P	G	A	L	T	D	F	F	V	N	L	L	D	M	G	N	E	W	K	A	T	S	N	-	E	D	V	Y	E	G	Y	D	R	K	S	G	S	K	K	F	T	A	S	R	V	D	L	I	F	G	S	H	A	E	L	R	A	V	A	E	: 717	
ChigKatG1	:	V	D	R	A	H	L	L	T	L	T	A	P	E	L	T	V	L	L	G	G	L	R	M	L	N	T	N	F	D	G	S	S	T	G	V	F	T	N	R	P	G	A	L	T	N	D	F	F	V	N	L	L	D	M	G	N	E	W	K	A	T	N	-	Q	D	V	Y	E	G	Y	D	R	K	S	G	S	K	K	Y	T	A	S	R	V	D	L	I	F	G	S	H	A	E	L	R	A	V	A	E	: 719	
MacrKatG1	:	V	D	R	A	H	L	L	T	L	S	A	P	E	L	A	V	L	V	G	G	L	R	A	L	N	A	N	Y	D	G	S	A	L	G	V	F	T	S	R	P	G	V	L	S	N	D	F	F	V	N	L	L	D	N	N	T	E	W	R	A	T	G	-	-	E	D	T	F	E	G	F	D	R	K	T	G	A	K	K	W	T	A	S	R	N	D	L	I	F	G	A	H	P	E	L	R	A	V	S	E	: 693
PEchKatG1	:	I	D	K	A	Q	Q	L	L	T	L	S	A	P	E	L	T	V	L	L	G	G	L	R	S	L	N	A	N	W	D	G	S	S	H	G	V	F	T	S	R	P	G	Q	L	S	N	D	F	F	V	N	L	L	D	M	S	T	V	W	K	P	T	D	A	D	S	E	K	F	E	G	F	D	R	K	T	G	A	K	K	W	S	A	T	R	V	D	L	I	F	G	H	A	E	L	R	A	L	S	E	: 703
MagKatG2	:	V	D	K	A	S	Q	L	L	T	P	P	E	L	T	V	L	V	G	G	M	R	A	L	G	A	N	Y	D	G	S	D	V	G	V	F	T	A	N	K	G	K	L	T	P	D	F	F	V	N	L	V	D	M	N	I	A	W	T	A	S	G	A	D	G	E	S	W	V	G	T	D	R	K	S	R	S	E	K	Y	K	G	S	R	A	D	L	V	F	G	S	H	A	E	L	R	A	I	S	E	: 752	
CgraKatG2	:	V	D	K	A	A	Q	L	L	T	L	S	P	P	E	M	T	V	L	V	G	G	L	R	A	L	G	A	V	F	D	G	S	N	T	G	V	L	T	E	K	K	Q	L	T	N	D	Y	F	K	N	L	L	D	I	S	T	V	W	S	Q	S	D	T	D	G	E	T	W	K	G	V	D	R	K	T	K	T	E	K	W	T	A	T	R	A	D	L	V	F	G	S	H	A	E	L	R	A	I	S	E	: 744
		6	D	4	A	1	L	T	L	3	p	E	t	L	6	G	6	R	L	n	5	D	G	s	G	V	T	p	G	L	3	n	5	F	n	L	6	D	W	e	5	e	G	r	k	3	g	k	4	3	R	D	L	6	F	G	H	E	L	R	A	6	E																																							

PTS 1

		*	820	*	840					
CgKatG1	:	VYGS	SSGQDKFVK	DFVAAW	SKVMNLD	DRYDL --- AQP	GSSGP	KL	:	749
CcochKatG1	:	VYGS	SSGQDKFVK	DFVAAW	NKVMNLD	DRYDL --- AQP	GSSGP	KL	:	750
MthKatG1	:	VYAS	AGGQDKFVK	DFVAAW	AKVMDL	DRFDL --- AQQ	GSAGP	KL	:	750
TterKatG1	:	VYAS	AGGQDKFVK	DFVAAW	DKVMNLD	DRFDL --- A			:	740
PanKatG1	:	VYGS	ADGQDKFVK	DFVAAW	DKVMNLD	DRFDL --- EQG	AGSSP	KL	:	755
CtheKatG1	:	VYAS	ADGQDKFVR	DFIAAW	DKVMNLD	DRFDL ---			:	723
MagKatG1	:	VYGS	ADGQDKFTK	DFVAAW	DKVMNLD	DRFDVRRGI	YDETRLKS	KL	:	750
SmaKatG1	:	VYAS	VDGEDKFKR	DFVAAW	HKVMNLD	DRFDLR -	QEGRGQNT	PKL	:	753
NtetKatG1	:	VYAAV	DGEEKFKR	DFVAAW	HKVMNLD	DRFDLK -	QEGRGQNAP	KL	:	753
MgKatG1	:	VYGS	SDGADKFT	RDFVSAW	EKVMNLD	DRFDLK -	AGQVSSA	KL	:	750
F2E518_Hv	:	VYGS	SDAQDKFVK	DFVAAW	TKVTNL	DRFDL -	SSSASSS	KARL	:	752
VdaKatG1L	:	VYGS	ADGEKKFVN	DFVAAW	TKVSNLD	DRFDVK -	KAPAVKTSS	RRL	:	762
VaaKatG1	:	VYGS	ADAEKKFVN	DFVAAW	TKVSNLD	DRFDVK -	KAPAVKTSS	RRL	:	728
VdaKatG1V	:	VYGS	ADGEKKFVN	DFVAAW	TKVSNLD	DRFDVK -	KAPAVKTSS	RRL	:	762
CgraKatG1	:	IYAQA	DAGQKFVN	DFVTIWN	KVMNLD	DRFDLK -	NNSG	SVASRL	:	758
ChigKatG1	:	IYAQA	DAGQKFVK	DFVTIWN	KVMNLD	DRFDLKS -	NSG	SVPSRL	:	760
MacrKatG1	:	VYGS	ADGAQKFVK	DFVAAW	DKVMNLD	DRFDLK -	R-GGNKKA	AARL	:	734
PEchKatG1	:	LYASS	DAQDKFKK	DFVAAW	DKVMNLD	RYDI -	PCFPATGR	PRL	:	744
MagKatG2	:	VYAENG	NQEKFVK	DFVAAW	TKVMNLD	DRFDLKVKK			:	786
CgraKatG2	:	VYASS	DANEKFVN	DFVAAW	TKVMNLD	DRFDL -	QK		:	776
		6Y s	KF	DF6aaw	KVm11DR5D6					1