

Human and Tasmanian devil STING:

Human	1	MPHSSLHPSIPCPRGHGAQKAALVLLSACLVTWGLGEPPEHTLRYLVLH	50
		. .	
Tasmanian	1	MPRSHLHPSIPQPRGWAQKAACVLLSLCMAAVYILGESAAFTLQWLLFY	50
Human	51	LASLQLGLLNGVCSIAEELRHIHSRYRGSYWRTVRACLGCPLRGALLL	100
		..: : .	
Tasmanian	51	FTTVQVGLLLKGAYCLAEEYHIQSRHQGSYWQAIQACIHYPFQRISLLL	100
Human	101	LSIYFYSLPNAVGPFFTWMALLGLSQALNILLGLKGLAPAEISAVCEK	150
			
Tasmanian	101	LSGYFYVTLNKPNSLTWTFFALLGLSHALSFILGLQNLTSAEISEVCEK	150
Human	151	GNFNVAHGLAWSYYIGYLRILPELQARIRTYNQHYNNLLRGAVSQRLYI	200
		..: .	
Tasmanian	151	RHLNVAHGLAWSYYIGYLRILPELQARIRTYNQHYNNLLRGAVSQRLYI	200
Human	201	LLPLDCGVPDNLSMADPNIRFLDKLPQQTGDHAGIKDRVYSNSIYELLEN	250
		: .	
Tasmanian	201	LIPLDCSVPDNLSQADPNIQFLQELPQHKLDRAKIGRIYTNISYKISED	250
Human	251	GQRAGTCVLEYATPLQTLFAMSQYSQAGFSREDRLAQAKLFCRTLEDILA	300
			
Tasmanian	251	GQPAEVCVLEFATPLQTLFAMSQDARAGFSREDRLAQAKLFCRTLEDILE	300
Human	301	DAPESQNNCRILAIYQEPADD--SSFSLSQEVLRHLRQEEKEEVTVGSLKT	348
		: .	
Tasmanian	301	DAPEARDCCRVLVYQEPEDKAVSNFSLSKEILRHLRQERQEEFAIGPKRA	350
Human	349	SAVPSTSTMSQEPPELLISGMEKPLPLRTD-FS	379
		.. : .	
Tasmanian	351	MTVTSSTLSQEPQLLISGMEQPLSLRTDGF-	381

FIGURE 1

Human and Marmoset STING:

Human	1	MPHSSLHPSIPCPRGHGAQKAALVLLSACLVTWGLGEPPEHTLRYLVLH	50
		: : : : : : :	
Marmoset	1	MPHSSLHPSIPHPRGHGAQEAAVLLSVCLVTWVLREAPEDILRFLVLH	50
Human	51	LASLQLGLLNGVCSLAEELRHIHSRYRGSYWRTVRACLGCPLRGALLL	100
		: : : : : : :	
Marmoset	51	LASLQLGLLNRLCSLAEELRHVHTRYQGSYWRACLGCPIRLGAQLL	100
Human	101	LSIYFYSLPNAVGPFTWMLALLGLSQALNILLGLKGLAPAEISAVCEK	150
		. . : : : : : :	
Marmoset	101	LSIYFYCFLLPN--GRPFTWMLALLGFSQALNILLGLKGLAPAEISAVCEK	148
Human	151	GNFNVAHGLAWSYYIGYLRILPELQARIRTYNQHYNNLLRGAVSQRLYI	200
		. : : : : : : :	
Marmoset	149	RNFNVAHGLAWSYYIGYLRILPQFQARIRTYNQHNNVLRGPASQRLYI	198
Human	201	LLPLDCGVDPNLSMADPNIRFLDKLPQQTGDHAGIKDRVYSNSIYELLEN	250
		. : : : : : : :	
Marmoset	199	LFPLDCGVDPNLSTADPNIRFLDKLPQETIDRAGIKGRVYTNSIYELLEN	248
Human	251	GQRAGTCVLEYATPLQTLFAMSQYSQAGFSREDRLEQAKLFCRTLEDILA	300
		. : : : : : : :	
Marmoset	249	GQRAGACVLEYASPLQTLFAMSQYQAGFSREDRLEQAKLFCRTLEDILA	298
Human	301	DAPESQNNCRLIAYQEPADDSSFSLSQEVLRLRQEEKEEVTGSLKTS	350
		: . . : : : : :	
Marmoset	299	DAPESQNNCRLIVYEEPADGSSFLLSQEVLQHLRQEEEEVTGSLKTSE	348
Human	351	VPSTSTMSQEPPELLISGMEKPLPLRTDFS	379
		: : : : : : :	
Marmoset	349	VPSTSTMSQEPPELLISGMEKPLPLRSDLF	377

FIGURE 2

Human and cattle STING:

Human	1	MPHSSLHPSIPCPRGHGAQKAALVLLSACLVTLWGLGEPPEHTLRYLVLH	50
Cattle	1	MPHSSLHPSIPQPRGLRAQKAALVLLSACLVALWGLGEPDYLTKWLVLH	50
Human	51	LASLQLGLLLNGVCSLAEELRHHSRYRGSYWRTVRACLGCPLRRGALLL	100
Cattle	51	LASQQMGLLIKGICSLAEELCHVHSRYHGSYWRVRAVRAVCLCSSMRGALLL	100
Human	101	LSIFYFYSLPNAVGPPFTWMLALLGLSQALNILLGLKGLAPAEISAVCEK	150
Cattle	101	LSCYFYCSLPNMADLPFTWMLALLGLSQALNILLGLQGLAPAEVSAICEK	150
Human	151	GNFNVAHGLAWSYYIGYLRILPELQARIRTYNQHYNNLLRGAVSQRLYI	200
Cattle	151	RNFNVAHGLAWSYYIGYLRILPGLPARIQIYNQFHNNLTQAGAGSHRLHI	200
Human	201	LLPLDCGVPDNLSMADPNIRFLDKLPQQTGDHAGIKDRVYSNSIYELEN	250
Cattle	201	LFPLDCGVPDDLNVADPNIRFLHELPQQSADRAGIKGRVYTNSIYELEN	250
Human	251	GQRAGTCVLEYATPLQTLFAMSQYSQAGFSREDRLQAKLFCRTLEDILA	300
Cattle	251	GQRAGVCVLEYATPLQTLFAMSQDGRAGFSREDRLQAKLFCRTLEDILA	300
Human	301	DAPESQNNCRLIAYQEPADDSSFSLSQEVLRHLRQEEKEEVTVGSLKTS	350
Cattle	301	NAPESQNNCRILIVYQEPAGSSFSLSQEILQHLRQEEER-EVTMGSTETSV	349
Human	351	VPSTSTMSQEPellisGMEKPLPLRTDFS	379
Cattle	350	MPGSSVLSQEPellisGLEKPLPLRSDFV	378

FIGURE 3

Human and cat STING:

Human	1	MPHSSLHPSIPCPRGHGAQKAALVLLSACLVTWGLGEPPEHTLRYLVLH	50
		 : : :	
Cat	1	MPRTGLHPSIPRPRGMGAQKAALVLLAVCLAALWRLGESPDHTLRWLVLH	50
Human	51	LASLQLGLLLNGVCSLAEELRHIHSRYRGSYWRTVRACLGCPLRRGALLL	100
		 : : . : : . : .	
Cat	51	LASLQLGLLFTGVCHLTEELCHLHSRYQGSYWRAMKACLGSPVRSGALLL	100
Human	101	LSIYFYYSPLNAVGPFFTWMLALLGLSQALNILLGLKGLAPAEISAVCEK	150
		. . : : : :	
Cat	101	LSCYFYSTLP-STDLPFTWMLALLGLSQALNILLDLQGLAPAEVSAVCEK	149
Human	151	GNFNVAGHLAWSYYIGYLRILPELQARIRTYNQHYNNLLRGAVSQRLYI	200
		. . . : . . . : : . . :	
Cat	150	KNFNVAGHLAWSYYIGYLRILPGLPARVLTCLHNNILRGTGSHRLHI	199
Human	201	LLPLDCGVDPNLSMADPNIRFLDKLPQQTGDHAGIKDRVYSNSIYELLEN	250
		. : : : . : : . . . : : .	
Cat	200	LFPLDCGVDDMSVADPNIRFLYELPQQSADRAGIKGRVYTNVYALLEN	249
Human	251	GQRAGTCVLEYATPLQTLFAMSQYSQAGFSREDRLEQAKLFCRTLEDILA	300
		: . . . :	
Cat	250	GQQAGICVLEYATPLQTLFAMSQDGRAGFSREDRLEQAKLFCRILEDILA	299
Human	301	DAPESQNNCRLLIAYQEPADDSSFSLSQEVLRLRLRQEEKEEVTGSLKTS	350
		 : : : : : . .	
Cat	300	DTPECQNNCRLLIVYQEPPEEGSNFSLSQEILRLRLRQEER-EVTGSGVGTSM	348
Human	351	VPSTSTMSQEPPELLISGMEKPLPLRTDFS	379
		 : . : . .	
Cat	349	VRNPSVLSQEPNLLISGMEQPLPLRTDVF	377

FIGURE 4

Human and ostrich STING:

Human	1	MPHSSLHPS-----IPCPRGHGAQKAALVLLSACLVTLWGLGEPPEHTL	44
		. .	
Ostrich	1	MAHESGTPSNPATPLIPKAREGRAQHAAYVLLALCAAALYLAGEPVVHIA	50
Human	45	RYLVLHLASLQLGLLNGVCSLAEELRHIHSRYRGSYWRTVRACLGCPLR	94
		 :	
Ostrich	51	RSFTSHFVALQIGALLKGICYLVEEIFHLETRHRGSFRRALSACL--HLR	98
Human	95	-RGALLLSIYFYSLPNAVGPPFTWMLALLGLSQALNILLGLKGLAPAE	143
		... :.... .: :.....: . . .:	
Ostrich	99	WHVTLLLVCGSAYVALLDGDEQPLGLHLGLACLCLQLLILALGLHKPSAVE	148
Human	144	ISAVCEKGNFNVAHGLAWSYYIGYLRILPELQARITYNQHYNNLLRGA	193
		. .: :....: . .: :.... :	
Ostrich	149	ISEMSERSKQNVAHGLAWSYYVGYLKIVLPRLKESMENIGRTNPNMLAHK	198
Human	194	VSQRLYILLPLDCGVDPNLSMADPNIRFLDKLPQQTGDHAGIKDRVYSNS	243
		.:.: : : . .: :: :.... : ::	
Ostrich	199	ETWKLHILVPLSCNICDDLEKADSNIQYAMDLPETTTLTRAGTKKRVYRNT	248
Human	244	IYELLENGQRAGTCVLEYATPLQTLFAMSQYSQAGFSREDRLAQKLFQR	293
		: : : : :.... : : . . .: : . . .: : . . .: :	
Ostrich	249	LYK-IKDEDKFRFCVVEYATPLQSLYAMSQDECAAFSREDRIEQAKLFYR	297
Human	294	TLEDILADAPESQNNCRLLIAYQEPADDSSFSLSQEVLRLHRLQEEKEEVT	343
		. .: :: : :.... : : . . .: :	
Ostrich	298	TLEEILQSAKECAGTYRLIVYEESGEAETHFLSREILRHLQQQRQEEYTV	347
Human	344	--GSLKTSAVPSTSTMSQEPPELLISGMEKPLPLRTDFS	379
		: . :.... . :.... . : : .	
Ostrich	348	CDGTL-----CSTDLSLQISESDLPQPLRSDCL	375

FIGURE 5

Human and crested ibis STING:

Human	1	---MPHSSLHPS---IPCPRGHGAQKAALVLLSACLVTLWGLGEPPEHTL	44
		 : 	
Crested	1	MSQEPQWLSHPTALLIPKARGGRAQHAVYLLALCAAVLYLAGEPLVPSA	50
Human	45	RYLVHLHLASLQGLLLNGVCSLAEELRHIHSRYRGSYWRTVRACLGCPLR	94
		.: : ... : :	
Crested	51	RSLISHFMALQIGVLLKGTCTYLAEEIFHLQSRHHGSFWRALSACF--PLR	98
Human	95	RGALLLSIYFYYSLPNAVGPPTWMLALLGLSQALNILLGLKGLAPAEI	144
		... :	
Crested	99	WHGLMLLVCGSAYVALLEDGQPLGLHLGLASLCQLLILALGLHKPSAVEM	148
Human	145	SAVCEKGNFNVAHGLAWSYYIGYLRILPELQARIRTYNQHYNNLLRGAV	194
		.: :	
Crested	149	SEMSERSKQNVAHGLAWSYYVGYLKIVLPRVKKSMEEFSTRANPNVLARRE	198
Human	195	SQRLYILLPLDCGVPDNLMSADPNIRFLDKLPQQTGDHAGIKDRVYSNSI	244
		:.: :	
Crested	199	TWKLHILVPLSCDVYDDLEKADSNIQYLMDLPETTLTRAGTKKRVYKHSL	248
Human	245	YELLENGQRAGTCVLEYATPLQTLFAMSQYSQAGFSREDRLEQAKLFCRT	294
		.: :	
Crested	249	YTIRDEGNKLWHCAVEYATPLQSLYAMSQDEYAAFSREDRLEQAKLFYRT	298
Human	295	LEDILADAPESQNNCRLIAYQEPADDSSFSLSQEVLRLRQEEKEEVTVG	344
		: :	
Crested	299	LEEILKGSKECAGTYRLIVYEEESGEAETHSLSRDILWHLRQQCHEEYTVY	348
Human	345	SLKTSAVPSTSTMSQEPPELLISGMEKPLPLRTDFS	379
		 : :	
Crested	349	EGNQPHNPSTTLHSTELNLQISESDLPPQPLRSDC-	382

FIGURE 6

Human and coelacanth (variant with SEQ ID NO:345) STING:

Human	1	MPHSSLHPSIPCPRGHGAQKAALVLLSACLVTLWGLGEPPEHTLRYLVLH	50
			
Coelacanth	1	FGLQNMSAIIPQPRGNRANQMAYFIITVILMLLWIFRNIMDNVLEVIALH	50
Human	51	LASLQLGLLLNGVCSLAEELRHIHSRYRGSYWRTVRACLGCP LRRGALLL	100
		:. .	
Coelacanth	51	ILLQGAAIMKGICNF AE EVNHVQPRYGGSYWKALEACLNLSKYDVMKIV	100
Human	101	LS--IYFYYSLPNAVGPFFT WMLALL--GLSQALNILLGLKGLAPAEISA	146
		.: :.: .	
Coelacanth	101	FAGVLWWHFSSSLFV---VWFLHLLV SCLCHLLNNVLGVLKPS PVEVSE	146
Human	147	VCEKGNFNV AHGLAWSYYIGYLR LILPELQARITYNQHYNLLRGAVSQ	196
		:. .	
Coelacanth	147	IYERNRIGVAHGLAWSYYLG YLKLVLPELEDRIKSYNVSHGNLLKHKETW	196
Human	197	RLYILLPLDCGVPDNL SMADPNIRFLDKLPQQTGDHAGIKDRVYSNSIYE	246
		: . .:.: :	
Coelacanth	197	RLHILPLSCSIFDNLADVDSNIEFLDNLSELQINRAGIKGRSYKHSLYQ	246
Human	247	LENGQRAGTCVLEYATPLQTLFAMSQYSQAGFSREDRLEQAKLFCRTLE	296
		: : : .: :	
Coelacanth	247	VLDEDKRPHYCILEYATPLKS LLEMSKEASAEFTKEDRLEQTKLFYRTLK	296
Human	297	DILADAPESQNNCR LIAY--QEPADDSSFSLSQEVLRLRLRQEEKEEVTVG	344
		: : . .:. . . .: : : . . : : . . .: : . . .: :	
Coelacanth	297	DILDNSQECRGRFRLVIYD GREDSGKSHF-LSKELLRLHLNQQQKEEYFMS	345
Human	345	SLKTSAVPSTSTMSQEP ELLISGMEKPLPLRTDFS	379
			
Coelacanth	346	EQTQPNSSSTSC LSTEPQLMISDTDAPHTLKRQVC	380

FIGURE 7

Human	1	-----MPHSSLHPSSIPCPRGHGAGQAALVLLSACLVTLWGLGEPPE .:.....:.....	41
Zebrafish	1	MSVMGEDALVPRARSRLPVMCAAGLG---FLTAVAWLLDSDKFSE---	43
Human	42	HTLRYLVHLHASLQGLLLNG----VCSLAEELR-HIHSRYRGSYWRTVR :.. : : 	86
Zebrafish	44	-----RAGIIAFGLMLERFIYCICLLAEELLFHRSQRYPHGRMSEIFR	85
Human	87	ACLGCPLRRA--LLLLSIYFYYSLPNAVGPFFTWMALLGLSQAL----	130
Zebrafish	86	. : :..: . . .: .: ACF-----RSGSIGLMCAIFL-----MLMLGGVSFSVKQWS	116
Human	131	--NIL-----LGLKGLAPAEISAVCEKGNFVAHGLAWSYYIGYLR :: :.: : : : : :	169
Zebrafish	117	HFNLMCAGYMLLSNLGVLGPAPVEISEICEAKMNVAHGLAWSFYIGYLK	166
Human	170	LILPELQARIPTYNQHYNNLLRGAVSQRLYIILLPLDCGVDPNLSMDPNI . : . .:.. . .: : : : : : : : : .	219
Zebrafish	167	FLLPALEVNVREYSRR----ERLSSPRLHILLPLNARVPSPKEEEDTNV	211
Human	220	RFLDKLPQQTGDHAGIKDRVYSNSIYELENGQ RAGTCVLEYATPLQTLF . .:.. :. .: : : :~ :~ :~ :~ :~ :~ :~ :~ :~	269
Zebrafish	212	VFHENLPDLKLDRAGVRKRSTNSVYKITHNNE-TFSCILEYATPLLTY	260
Human	270	AMSQYSQAGFSREDRLAQAKLF CRTLED ILADAPESQNNCR LIAYQEPAD . . . : : : :~ :~ :~ :~ :~ :~ :~ :~ :~ :~ :~ :~ :~	319
Zebrafish	261	QMSQESSAGFGGERERKQ QVLLFYRTL SQILD NSLEC RNRYRL ILLNDEHT	310
Human	320	DSSFSLSQEVLRHLRQE-----KEEVT V G S L K T S A V P S T - : :~ :~ :~ :~ :~ :~ :~ :~ :~ :~ :~ :~ :~ :~	354
Zebrafish	311	GDPHYLSREL FQN LK QDGE IF MDPT NE VH PV EEGPVGN C- NGALQATF	359
Human	355	--STM SQEP ELL IS GM EK PL PL R-----TDFS-----	379
Zebrafish	360	: . : :.. : HEEPS DEPT LM FS ---R POS LR SE PV ET TD Y EN PSSAM KON	398

FIGURE 8

Human and boar STING:

Human	1	MPHSSLHPSIPCPRGHGAQKAALVLLSACLVTLWGLGEPPEHTLRYLVLH	50
		: :	
Boar	1	MPYSSLHPSIPQPRGLRAQVAALVLLGACLVALWGLGELPEYTLRWLVLH	50
Human	51	LASLQLGLLLNGVCSLAEELRHIHSRYRGSYWRTVRACLGCPLRGALLL	100
		. : : : : : .	
Boar	51	LASQQIGLLVKGLCSLAEELCHVHSRYQSSYWRAARACLGCPIRCALLL	100
Human	101	LSIYFYSLPNAVGPFFTWMALLGLSQALNILLGLKGLAPAEISAVCEK	150
		. : :.. : . : :	
Boar	101	LSCYFYFSIRDKAGLPLPWMLALLGLSQALNILLGLQHLAPAEVSAICEK	150
Human	151	GNFNVAHGLAWSYYIGYLRILPELQARIRTYNQHYNNLLRGAVSQRLYI	200
		 : : : . :	
Boar	151	RNFNVAHGLAWSYYIGYLRILPGLRARIQAYNQHKNVLGGIGNHRLHI	200
Human	201	LLPLDCGVPDNLSMADPNIRFLDKLPQQTGDRAGIKDRVYSNSIYELLEN	250
		. : : : ... : : :	
Boar	201	LFPLDCGVPDDL SVADPNIRFLHELPQQSADRAGIKGRVYTNSIYELLEN	250
Human	251	GQRAGTCVLEYATPLQTLFAMSQYSQAGFSREDRLEQAKLFCRTLEDILA	300
		 : 	
Boar	251	GQPAGVCVLGYATPLQTLFAMSQDGRAGFSREDRLEQAKLFCRTLEDILA	300
Human	301	DAPESQNNCRLIAYQEPADDSSFSLSQEVLRLRQEEKEEVTGSLKTS	350
		: : : : : . .	
Boar	301	DAPEAQNNCRLIVYQEPTGGFSFSLSQEILRLRQEEER-EVTMGSAETSV	349
Human	351	VPSTSTMSQEPellisGMEKPLPLRTDFS	379
		: : ... : : ..	
Boar	350	VPTSSTLSQEPellisGMEQPLPLRSDIF	378

FIGURE 9

Human and bat STING:

Human	1	MPHSSLHPSIPCPRGHGAQK-AALVLLSACLVTLWGLGEPPEHTLRYLVL	49
		. .	
Bat	1	MSHSSLHPSVPRPRGRARRNIAAFVLLIVCLAALWLSGKPKSEYTLRCLVL	50
Human	50	HLASLQLGLLLLNGVCSLAEELRHIHSRYRGSYWRTVRACLGCPPLRRGALL	99
		. .	
Bat	51	HLASQQLGLLSNRVCYLAELSHIHSRYQGNYWRAVRACLSCPIRFGVVL	100
Human	100	LLSIYFYYSLPNAVGPFFTWMALLGLSQALNILLGLKGLAPAEISAVCE	149
		. .	
Bat	101	LVSFFFYTSLPNIDDLPLTWMLAHLGLSEALNILLGLRGLTPAEVSTVCE	150
Human	150	KGNFNVAGHLAWSYYIGYLRLLPELQARIRTYNQHYNLLRGAVSQRLY	199
		:.: .:. .:. .:. .:. .:. .:. .:. .:. .:. .:. .:. .:. .:. .:. .	
Bat	151	QRHFNVAGHLAWSYYIGYLRLLPGLRARIHTYNQLHGNTLQGVGSHRLY	200
Human	200	ILLPLDCGVDPNLSMADPNIRFLDKLPQQTGDRAGIKDRVYSNSIYELLE	249
		. .	
Bat	201	ILFPLDCGVLDLSDAADPNIRFLRELPRQSSDRAGIKNRVYTNSVYELLE	250
Human	250	NGQRAGTCVLEYATPLQTLFAMSQYSQAGFSREDRLQAKLFCRTLEDIL	299
		. .:. .:. .:. .:. .:. .:. .:. .:. .:. .:. .:. .:. .:. .:. .	
Bat	251	KGKPVGTCVLEYATPLQTLFAMSQDARAGFSQEDRLQAKLFCRTLADIL	300
Human	300	ADAPESQNNCRILYQEPADDSSFSLSQEVLRHLRQEEKEEVTVGSLKTS	349
		. .	
Bat	301	ADDPESQKSCRLIVYQEPTEESDFSLSQAILKHLRQEEKEEVTVGTVGTY	350
Human	350	AVPSTSTMSQEPPELLISGMEKPLPLRTDFS	379
		.. .:. .:. .:. .:. .:. .:. .:. .:. .:. .:. .:. .:. .:. .:. .	
Bat	351	EAPGSSTLHQEPPELLISGMDQPLPLRTDIF	380

FIGURE 10

Human	1	---MPHSSLHPSIPCPRGHGAQKAALVLLSACLVTLWGLGEPPEHTLRYL	47
		 ::	
Manatee	1	MVEMPHSSLHPSIPRHRGHGIQKAAFVLLVACLVALWELGEPFGHTLQWL	50
Human	48	VLHLASLQLGLLLNGVCSLAEELRHIHSRYRGSYWRTVRACLGCPLRGA	97
		:.. ...:.. ...:.. ...:..	
Manatee	51	VCQLASLQLGLLLKVICS�AEELCHVHSRYQSSYWRAVRACMGCPIRRGA	100
Human	98	LLLLSIYFYYSLPNAVGPFFTWMALLGLSQALNILLGLKGLAPAEISAV	147
		. :.. : . : :	
Manatee	101	LLLLSCYFYFCFPMADLPLTWTLALLGLLQAMNILLSLQGLTPAEISAI	150
Human	148	CEKGNFNVAGHLAWSYYIGYLRILPELQARIPTYNQHYNNLLRGAVSQR	197
		 : : : : :	
Manatee	151	CEKRNLNVAHGLAWSYYIGYLRILPGLQDRIRYNLQHNNMLRGTGSQR	200
Human	198	LYILLPLDCGVPDNLMSADPNIRFLDKLPQQTGDRAGIKDRVYSNSIYEL	247
		: :	
Manatee	201	LHILFPLDCGVPNDLSVADANIRFLQKLPQQSADCAIGKGRVYTNSVYQL	250
Human	248	LENGQRAGTCVLEYATPLQTLFAMSQYSQAGFSREDRLEQAKLFCRTLED	297
		: : :: ...	
Manatee	251	LEHGQPAGICVLEYATPLQTLFAMSQDGRAGFSREDRLEQAKLFCRTLED	300
Human	298	ILADAPESQNNCRLIAYQEPADSSFSLSQEVLRHLRQEEKEEVTGSLK	347
		 :	
Manatee	301	ILADAPEYQNNCRLIVYQESAEGSSFSLSQEI LRHLRQEERE EVTGSGVG	350
Human	348	TSAV-----PSTSTMSQEPellisGMEKPLPLRTDFS	379
		. :: : : : : : : : : : : : : : : : :	
Manatee	351	TSVVPSPSSPSTSSLSQEPKLLISGMEQPLPLRTDVF	387

FIGURE 11

[illegible]**FIGURE 12**

