	1 10	20	30	40	50	60	70	80	90
Consensus					AGTGGGSMLG				
Anogam_AGAP006028-RC Aedaeg_AAEL008354-RJ			TUNLAL FUPQ		AGTGGGSMLG		FSVGYDKRVR FSVGYDKRVR		
Anoalb_AALB015766-RA				TINRTPPYVL			FS I GYDKRVR		
Anoara_AARA016354-RA	MSLTIEVPHA			TINRTPPYVL			FSVGYDKRVR		
Anoatr_AATE010320-RA							FSVGYDKRVR		
Anodar_ADAC005672-RA Anodir_ADIR015697-RA	MSLTLEVPHA MSLTLEVPHA			TINRTPPYVL	AGTGGGSMLG AGTGGGSMLG		FS I GYDKRVR FSVGYDKRVR		
Anoepi AEPI003638-RA		KSPSLGVLIL		TINRTPPYVL			FSVGYDKRVR		
Anofar_AFAF009658-RA	MSLTIEVPHA		TLNLALFLPQ	TINRTPPYVL	AGTGGG SML G		FSVGYDKRVR		
Anofun_AFUN016339-RA			TLNLALFLPQ		AGTGGGSMLG AGTGGGSMLG		FSVGYDKRVR FSVGYDKRVR		
Anomer_AMEM002384-RA Anomin AMIN015765-RA	MSLTIEVPHA MSLTIEVPHA			TINRTPPYVL			FSVGYDKRVR FSVGYDKRVR		
	100	110	120	130	140	150	160	170	180
Consensus	SLS <mark>EV</mark> KMDFT	LDFYFRQFWT	DPRLAYRKRP	GVETL SVGSE	FIKNIWVPDT	FF <mark>VNE</mark> KQSYF	HIATTSNEFI	RIHHSGSITR	SIRLTITASC
Anogam_AGAP006028-RC		LDFYFRQFWT			FIKNIWVPDT				
Aedaeg_AAEL008354-RJ Anoalb_AALB015766-RA		LDFYFRQFWS LDFYFRQFWT			FIKNIWVPDT FIKNIWVPDT				
Anoara AARA016354-RA		LDFYFRQFWT			FIKNIWVPDT				
Anoatr_AATE010320-RA	SLS <mark>EV</mark> KMDFT	LDFYFRQFWT	DPRLAYRKRP	GVETLS VGSE	FIKNIWVPDT	FF <mark>VNE</mark> KQSYF	HIATTSNE FI	RIHHSGSITR	SIRLTITASC
Anodar_ADAC005672-RA		LDFYFRQFWT LDFYFRQFWT			FIKNIWVPDT FIKNIWVPDT				
Anodir_ADIR015697-RA Anoepi_AEPI003638-RA		LDFYFRQFWT			FIKNIWVPDT				
Anofar_AFAF009658-RA	SVS <mark>EV</mark> LMDFT	LDFYFRQFWT	DPRLAYRKRP	GVETLS VGSE	FIKNIWVPDT	FF <mark>VNE</mark> KQSYF	HIATTSNEFI	RIHHSGSITR	SIRLTITASC
Anofun_AFUN016339-RA		LDFYFRQFWT			FIKNIWVPDT				
Anomer_AMEM002384-RA Anomin AMIN015765-RA		LDFYFRQFWT LDFYFRQFWT			FIKNIWVPDT FIKNIWVPDT				
	190	200	210					260	
Consensus	PMNLQYFPMD	RQLCHIEIES	FGYTMRDIRY	KWNEGPNS <mark>V</mark> G	VSSEVSLPQF	K <mark>VLGH</mark> RQRAM	EISLTTGNYS	RLACETQFVR	SMGYYL IQIY
Anogam_AGAP006028-RC	PMNLQYFPMD	RQLCHIEIES			MSSEVELPQF				
Aedaeg_AAEL008354-RJ Anoalb AALB015766-RA	PMNLQYFPMD PMNLQYFPMD				MSSEVELPQF VSSEVSLPQF				
Anoara_AARA016354-RA	PMNLQYFPMD PMNLQYFPMD	RQLCHIETES			VSSEVSLPQF				
Anoatr_AATE010320-RA	PMNL QYF PMD	RQLCHIEIES	FGYTMRDIRY	KWNEGPNS <mark>V</mark> G	VSSEVSLPQF	K <mark>VLGH</mark> RQRAM	E ISLTTGNYS	RLACE QFVR	SMGYYLIQIY
Anodar_ADAC005672-RA Anodir_ADIR015697-RA	PMNLQYFPMD PMNLQYFPMD				VSSEVSLPQF				
Anoepi_AEPI003638-RA	PMNLQYFPMD	RQLCHIE I E S			WSSEVSLPQF MSSEVELPQF		E I SL TTGNYS FINITTGNYS		
Anofar_AFAF009658-RA	PMNLQYFPMD				VSSEVSLPQF				
Anofun_AFUN016339-RA	PMNLQYFPMD	RQLCHIEIES			VSSEVSLPQF				
Anomer_AMEM002384-RA Anomin AMIN015765-RA	PMNLQYFPMD PMNLQYFPMD	RQLCHIEIES RQLCHIEIES			VSSEVSLPQF VSSEVSLPQF				
	280	290	300	310	320	330	340	350	360
Consensus	IPSGL IVIIS	W <mark>V</mark> SFWLNRNA	TPAR <mark>V</mark> ALGVT	TVLTMTTLMS	STNAALPKIS	YVK S I DVYL G	TCFVMVFASL	LEYAT <mark>V</mark> GYMA	KR I QMR KQR F
Anogam_AGAP006028-RC					STNAALPKIS				
Aedaeg_AAEL008354-RJ Anoalb_AALB015766-RA					STNAAL PK IS STNAAL PK IS				
Anoara_AARA016354-RA					STNAALPKIS				
Anoatr_AATE010320-RA					STNAALPKIS				
Anodar_ADAC005672-RA Anodir_ADIR015697-RA					STNAAL PK IS STNAAL PK IS				
Anoepi AEPI003638-RA					STNAALPKIS				
Anofar_AFAF009658-RA					STNAALPKIS				
Anofun_AFUN016339-RA Anomer AMEM002384-RA					STNAAL PK IS STNAAL PK IS				
Anomin AMIN015765-RA					STNAALPKIS				
_	370		390					438	
Consensus	MATQKTAEQK	KQQQADANHP	PPPPP <mark>V</mark> ASDH	SHGHGHGHSH	THQHTPKQQM	GSRSGTMQNV	PPNMGSRG	CS I VGP L F Q E	V R FK <mark>VHDP</mark> KA
Anogam_AGAP006028-RC					THOHTPKOOM				
Aedaeg_AAEL008354-RJ Anoalb_AALB015766-RA		KQQAADANHP KOQAADSNHP			GHQHTPKQQM THQHTPKQQM				
Anoara_AARA016354-RA					THQHTPKQQM				
Anoatr_AATE010320-RA					THOHTPKOOM				
Anodar_ADAC005672-RA Anodir ADIR015697-RA					THQHTPKQQM THQHTPKQQM				
Anoepi_AEPI003638-RA					THQHTPKQQM				
Anofar_AFAF009658-RA					THQHTPKQQM				
Anofun_AFUN016339-RA Anomer AMEM002384-RA					THQHTP KQQM THQHTP KQQM				
Anomin_AMIN015765-RA					THQHTPKQQM				
Canada	458		474		480 489		1	519	ı
Consensus					GGGGGGPDEE				
Anogam_AGAP006028-RC Aedaeg_AAEL008354-RJ		INGGRGGGQP INGGRGGGGP			GGGGGGPDEE GGGGGGPDEE				
Anoalb_AALB015766-RA		INGGRGGGPP					GKDINKLLGI		
Anoara_AARA016354-RA	HSKGGTLENT	INGGRGGGQP	GGGGPP	PGGPP	GGGGGGPDEE	SAAPQHLIHP	GKDINKLLGI	TPSDIDKYSR	I V F P V C F V C F
Anoatr_AATE010320-RA Anodar ADAC005672-RA		INGGRGGGQP INGGRGGGPP			GGGGGGPDEE		GKD INKLLG I		
Anodir_ADIR015697-RA					GGGGGGPDEE				
Anoepi_AEPI003638-RA					GGGGGGPDEE				
Anofar_AFAF009658-RA Anofun_AFUN016339-RA					GGGGGGPDEE GGGGGGPDEE				
Anomer_AMEM002384-RA	HSKGGTLENT	INGGRGGGQP	GGGGPP	PGGPP	GGGGGGPDEE	SAAPQHLIHP	GKDINKLLGI	TPSDIDKYSR	I V F P V C F V C F
Anomin_AMIN015765-RA				PGGPP	P <mark>GGPDEE</mark>	SAAPQHLIHP	GKD I NKLLGI	TPSDIDKYSR	I V F P V C F V C F
Consensus	539	VSDVVADDLV	555 LLGFFK						
Anogam_AGAP006028-RC		VSDVVADDLV VSDVVADDLV							
Aedaeg_AAEL008354-RJ		VSDVVADDLV VSDVVADDLV							
Anoalb_AALB015766-RA	NLMYWIIYLH	VSDVVADDLV	LLGEEK						
Anoara_AARA016354-RA	NEMYWIIYEH								
Anoatr_AATE010320-RA Anodar ADAC005672-RA	NLMYWIIYLH NLMYWIIYLH								
Anodir_ADIR015697-RA	NLMYWIIYLH	VSDVVADDLV	LLGEEK						
Anoepi_AEPI003638-RA	NEMYWIIYEH								
Anofar_AFAF009658-RA Anofun_AFUN016339-RA	NLMYWIIYLH NLMYWIIYLH	VSDVVADDLV VSDVVADDLV							
Anomer_AMEM002384-RA	NLMYWIIYLH	VSDVVADDLV	LLGEEK						
Anomin_AMIN015765-RA	NLMYWIIYLH	VSDVVADDLV	LLGEEK						