

NTDB id	330	STU RS11365 WP 002949732.1	MIPVVIEQTSRGRERSYDIYSRLKLDRIIMLTGPIEDNMANSIIAQLFLDQAQDNTKDIIYLVTNTPGGSVSAG	72
NTDB id	298	STER RS01925 WP 002949732.1	MIPVVIEQTSRGRERSYDIYSRLKLDRIIMLTGPIEDNMANSIIAQLFLDQAQDNTKDIIYLVTNTPGGSVSAG	72
NTDB id	282	KZH43 RS03215 WP 000613477.1	MIPVVIEQTSRGRERSYDIYSRLKLDRIIMLTGPVEDNMANSVIAQLFLDAQDS TKDIIYLVTNTPGGSVSAG	72
NTDB id	246	SPD RS03495 WP 000613477.1	MIPVVIEQTSRGRERSYDIYSRLKLDRIIMLTGPVEDNMANSVIAQLFLDQAQDS TKDIIYLVTNTPGGSVSAG	72
NTDB id	244	SPR RS03300 WP 000613477.1	MIPVVIEQTSRGRERSYDIYSRLKLDRIIMLTGPVEDNMANSVIAQLFLDQAQDS TKDIIYLVTNTPGGSVSAG	72
NTDB id	242	SP RS03655 WP 000613477.1	MIPVVIEQTSRGRERSYDIYSRLKLDRIIMLTGPVEDNMANSVIAQLFLDQAQDS TKDIIYLVTNTPGGSVSAG	72
NTDB id	602	KW2 RS03060 WP 011834647.1	MGYLVPTVIEQSSRGERAYDIYSRLKLDRIIMLTGPVEDGMANSIIAQLFLDQAQDNTKDIIYLVTNTPGGSVSAG	75
NTDB id	611	V4T04 RS07970 WP 003129593.1	MGYLVPTVIEQSSRGERAYDIYSRLKLDRIIMLTGPVEDGMANSIIAQLFLDQAQDNTKDIIYLVTNTPGGSVSAG	75
NTDB id	446	SpyM6JRS4 RS01695 WP 002985850.1	MIPVVIEQTSRGRERSYDIYSRLKLDRIIMLTGPVEDNMANSVIAQLFLDQAQDNTKDIIYLVTNTPGGSVSAG	72
NTDB id	445	SPYM3 RS01720 WP 002985850.1	MIPVVIEQTSRGRERSYDIYSRLKLDRIIMLTGPVEDNMANSVIAQLFLDQAQDNTKDIIYLVTNTPGGSVSAG	72
NTDB id	1140495	DQN33 RS02390 WP 012657964.1	MIPVVIEQTSRGRERSYDIYSRLKLDRIIMLTGPVEDNMANSIIAQLFLDQAQDNTKDIIYLVTNTPGGSVSAG	72
NTDB id	376	SMU RS07595 WP 255262720.1	MELKEKYS MIPVVIEQTSRGRERSYDIYSRLKLDRIIMLTGPVEDNMANSIIAQLFLDQAQDNTKDIIYLYINSPPGVS SAG	80
NTDB id	1223	Cj0192c YP 002343650.1	MFIPYVIEKSSRGRERSYDIYSRLKLDRIIMLTSGEIHDELAAASIV AQLLFLAEADPTKDIIYLYINSPGGVITSG	73
NTDB id	86	BSU 34540 NP 391334.1	MNLIPTVIEQTNRGERAYDIYSRLKLDRIIMLTGSAIDNNVANISVSQLFLFAAEDPEKEISLYINSPGG SITAG	74
consensus				**!*!*****!!*!!!!!!!!!!!!!!**!*!*****!!*!!!!!!!!!!!!!!**!*!*****!!*!!!!!!!!!!!!!!

NTDB id 330	STU RS11365 WP 002949732.1	LAIVDTMNF	IKS	DVQ	TIV	MGMA	ASMG	T	I	ASSG	T	KGK	R	F	M	L	P	N	A	E	Y	M	I	H	Q	P	M	G	G	T	G	G	G	T	Q	Q	T	D	M	A	I	A	A	E	H	L	L	K	T	R	N	N	L	E	Q	152			
NTDB id 298	STER RS01925 WP 002949732.1	LAIVDTMNF	IKS	DVQ	TIV	MGMA	ASMG	T	I	ASSG	T	KGK	R	F	M	L	P	N	A	E	Y	M	I	H	Q	P	M	G	G	T	G	G	G	T	Q	Q	T	D	M	A	I	A	A	E	H	L	L	K	T	R	N	N	L	E	Q	152			
NTDB id 282	KZH43 RS03215 WP 000613477.1	LAIVDTMNF	IKA	DVQ	TIV	MGMA	ASMG	T	V	I	ASSG	A	K	G	K	R	F	M	L	P	N	A	E	Y	M	I	H	Q	P	M	G	G	T	G	G	G	T	Q	Q	T	D	M	A	I	A	A	E	H	L	L	K	T	R	N	T	L	E	K	152
NTDB id 246	SPD RS03495 WP 000613477.1	LAIVDTMNF	IKS	DVQ	TIV	MGMA	ASMG	T	V	I	ASSG	A	K	G	K	R	F	M	L	P	N	A	E	Y	M	I	H	Q	P	M	G	G	T	G	G	G	T	Q	Q	T	D	M	A	I	A	A	E	H	L	L	K	T	R	N	T	L	E	K	152
NTDB id 244	SPR RS03300 WP 000613477.1	LAIVDTMNF	IKA	DVQ	TIV	MGMA	ASMG	T	V	I	ASSG	A	K	G	K	R	F	M	L	P	N	A	E	Y	M	I	H	Q	P	M	G	G	T	G	G	G	T	Q	Q	T	D	M	A	I	A	A	E	H	L	L	K	T	R	N	T	L	E	K	152
NTDB id 242	SP RS03655 WP 000613477.1	LAIVDTMNF	IKA	DVQ	TIV	MGMA	ASMG	T	V	I	ASSG	A	K	G	K	R	F	M	L	P	N	A	E	Y	M	I	H	Q	P	M	G	G	T	G	G	G	T	Q	Q	T	D	M	A	I	A	A	E	H	L	L	K	T	R	N	T	L	E	K	152
NTDB id 602	KW2 RS03060 WP 011834647.1	LAIVDTMNF	IKS	DVQ	TIV	MGMA	ASMG	T	I	ASSG	T	KGK	R	F	M	L	P	N	A	E	Y	L	I	H	Q	P	M	G	G	A	C	Q	G	T	Q	Q	T	D	M	A	I	V	A	E	Q	L	L	K	T	R	K	R	L	E	Q	155			
NTDB id 611	V4T04 RS07970 WP 003129593.1	LAIVDTMNF	IKS	DVQ	TIV	MGMA	ASMG	T	I	ASSG	T	KGK	R	F	M	L	P	N	A	E	Y	L	I	H	Q	P	M	G	G	T	G	G	T	Q	Q	T	D	M	A	I	V	A	E	Q	L	L	K	T	R	K	R	L	E	Q	155				
NTDB id 446	SpyM6JRS4 RS01695 WP 002985850.1	LAIVDTMNF	IKA	DVQ	TIV	MGMA	ASMG	T	V	I	ASSG	T	KGK	R	F	M	L	P	N	A	E	Y	M	I	H	Q	P	M	G	G	T	G	G	G	T	Q	Q	T	D	M	A	I	A	A	E	H	L	L	K	T	R	H	R	L	E	K	152		
NTDB id 445	SPYM3 RS01720 WP 002985850.1	LAIVDTMNF	IKA	DVQ	TIV	MGMA	ASMG	T	V	I	ASSG	T	KGK	R	F	M	L	P	N	A	E	Y	M	I	H	Q	P	M	G	G	T	G	G	G	T	Q	Q	T	D	M	A	I	A	A	E	H	L	L	K	T	R	H	R	L	E	K	152		
NTDB id 1140495	DQN33 RS02390 WP 012657964.1	LAIVDTMNF	IKS	DVQ	TIV	MGMA	ASMG	T	I	ASSG	T	KGK	R	F	M	L	P	N	A	E	Y	L	I	H	Q	P	M	G	G	T	G	S	T	Q	Q	T	D	M	A	I	V	A	E	Q	L	L	K	T	R	K	R	L	E	K	152				
NTDB id 376	SMU RS07595 WP 255262720.1	LAIVDTMNF	IKS	DVQ	TIV	MG	T	A	ASMG	T	I	ASSG	A	K	G	K	R	F	M	L	P	N	A	E	Y	L	I	H	Q	P	M	G	G	T	G	G	G																						

NTDB id 330 STU RS11365 WP 002949732.1	ILADNSGQPIEKVHVDAERDNWMSAQETLEYGFIDEIMTNNQLK.	196
NTDB id 298 STER RS01925 WP 002949732.1	ILADNSGQPIEKVHVDAERDNWMSAQETLEYGFIDEIMTNNQLK.	196
NTDB id 282 KZH43 RS03215 WP 000613477.1	ILAE NSGQSMEKVVHADAERDNWMSAQETLEYGFIDEIMANNSLN.	196
NTDB id 246 SPD RS03495 WP 000613477.1	ILAE NSGQSMEKVVHADAERDNWMSAQETLEYGFIDEIMANNSLN.	196
NTDB id 244 SPR RS03300 WP 000613477.1	ILAE NSGQSMEKVVHADAERDNWMSAQETLEYGFIDEIMANNSLN.	196
NTDB id 242 SP RS03655 WP 000613477.1	ILAE NSGQSMEKVVHADAERDNWMSAQETLEYGFIDEIMANNSLN.	196
NTDB id 602 KW2 RS03060 WP 011834647.1	ILADNSNRSLEQIHKDAERDHWMDAKETLEYGFIDEIMENNSLK.	199
NTDB id 611 V4T04 RS07970 WP 003129593.1	ILADNSNRSLEQIHKDAERDHWMDAKETLEYGFIDEIMENNSLK.	199
NTDB id 446 SpyM6JRS4 RS01695 WP 002985850.1	ILAAQNAKGTIKQIHKDAERDYWMSAEETLAYGFIDEIMENNELK.	196
NTDB id 445 SPYM3 RS01720 WP 002985850.1	ILAAQNAKGTIKQIHKDAERDYWMSAEETLAYGFIDEIMENNELK.	196
NTDB id 1140495 DQN33 RS02390 WP 012657964.1	ILSDNSGKTIKQIHKDAERDYWMDAKETLEYGFIDAIMENNELK.	196
NTDB id 376 SMU RS07595 WP 255262720.1	ILSDNSGKTIKQIHKDAERDYWMDAKETLKYGFIDEIMENNELK.	204
NTDB id 1223 Cj0192c YP 002343650.1	ILAKNTKQKVAKIAKDTERDFFMSAQEAK EYGLIDKVL EKSFK.	194
NTDB id 86 BSU 34540 NP 391334.1	VLAERTGQPLEVIERDTRDNEFKSAEEALEYGLIDKILTHTEDKK	197
consensus	*!***** * * * ! * * * ! * * * ! * * * ! * * * ! * * *	

 non conserved
 similar
 $\geq 50\%$ conserved