

NTDB id	330	STU RS11365 WP 002949732.1	MIPVVIEQTSRGRERSYDIYSRLCLKDRIIMLTGPIEDNMANSIIAQLFLFDAQDNTKDIYLYVNTPGGSVSAG	72
NTDB id	298	STER RS01925 WP 002949732.1	MIPVVIEQTSRGRERSYDIYSRLCLKDRIIMLTGPIEDNMANSIIAQLFLFDAQDNTKDIYLYVNTPGGSVSAG	72
NTDB id	282	KZH43 RS03215 WP 000613477.1	MIPVVIEQTSRGRERSYDIYSRLCLKDRIIMLTGPVEDNMANSVIAQLFLFDAQDS TKDIYLYVNTPGGSVSAG	72
NTDB id	246	SPD RS03495 WP 000613477.1	MIPVVIEQTSRGRERSYDIYSRLCLKDRIIMLTGPVEDNMANSVIAQLFLFDAQDS TKDIYLYVNTPGGSVSAG	72
NTDB id	244	SPR RS03300 WP 000613477.1	MIPVVIEQTSRGRERSYDIYSRLCLKDRIIMLTGPVEDNMANSVIAQLFLFDAQDS TKDIYLYVNTPGGSVSAG	72
NTDB id	242	SP RS03655 WP 000613477.1	MIPVVIEQTSRGRERSYDIYSRLCLKDRIIMLTGPVEDNMANSVIAQLFLFDAQDS TKDIYLYVNTPGGSVSAG	72
NTDB id	602	KW2 RS03060 WP 011834647.1	MGYLVPITVIEQSSRGERAYDIYSRLCLKDRIIMLTGPVEDGMANSIIAQLFLFDAQDNTKDIYLYVNTPGGSVSAG	75
NTDB id	611	V4T04 RS07970 WP 003129593.1	MGYLVPITVIEQSSRGERAYDIYSRLCLKDRIIMLTGPVEDGMANSIIAQLFLFDAQDNTKDIYLYVNTPGGSVSAG	75
NTDB id	446	SpyM6JRS4 RS01695 WP 002985850.1	MIPVVIEQTSRGRERSYDIYSRLCLKDRIIMLTGPVEDNMANSVIAQLFLFDAQDNTKDIYLYVNTPGGSVSAG	72
NTDB id	445	SPYM3 RS01720 WP 002985850.1	MIPVVIEQTSRGRERSYDIYSRLCLKDRIIMLTGPVEDNMANSVIAQLFLFDAQDNTKDIYLYVNTPGGSVSAG	72
NTDB id	1122029	EL147 RS08640 WP 003083781.1	MIPVVIEQTSRGRERSYDIYSRLCLKDRIIMLTGPVEDNMANSIIAQLFLFDAQDNTKDIYLYVNTPGGSVSAG	72
NTDB id	376	SMU RS07595 WP 255262720.1	MELKEKYS MIPVVIEQTSRGRERSYDIYSRLCLKDRIIMLTGPVEDNMANSIIAQLFLFDAQDNTKDIYLYINSPPGGSVSAG	80
NTDB id	1223	Cj0192c YP 002343650.1	MFIPYVIEKSSRGRERSYDIYSRLCLKDRIIMLTSGEIHDELAAASIV AQLFLFEAE DPTKDIYLYINSPPGVITS	73
NTDB id	86	BSU 34540 NP 391334.1	MNL IPTVIEQTNRGERAYDIYSRLCLKDRIIMLTGSAIDNNVANSIVS QLLFLFAAEPEKEISLYINSPPGSITAG	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	SPY3	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	1122029	EL147	RS08640	WP	003083781.1	LAIVDTMNF	IKS	DVQ	TIV	MGMA	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	A	C	S	G	T	Q	Q	T	D	M	A	I	V	A	E	Q	L	L	K	T	R	K						

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 1122029 EL147 RS08640 WP 003083781.1	ILADNSGKTIKQIHKDAERDYWMDAKETLEYGFIDEIMENNELK.	196
NTDB id 376 SMU RS07595 WP 255262720.1	ILSDNSGKTIKQIHKDAERDYWMDAKETLKYGFIIDEIMENNELK.	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