

NTDB	id	602	KW2	RS03060	WP	011834647.1		MGYL	VPTVIEQSSRGERAYDIYSRLKDRIIIMLTGPVEDGMANS	I	IAQLFLDAQDN	T	KD	IYLYVNTPGGSVSAG	75		
NTDB	id	611	V4T04	RS07970	WP	003129593.1		MGYL	VPTVIEQSSRGERAYDIYSRLKDRIIIMLTGPVEDGMANS	I	IAQLFLDAQDN	T	KD	IYLYVNTPGGSVSAG	75		
NTDB	id	206048	BMJ42	RS04265	WP	000613477.1		MIPVV	IEQTSGERSYDIYSRLKDRIIIMLTGPVEDNMANS	V	IAQLFLDAQDS	T	KD	IYLYVNTPGGSVSAG	72		
NTDB	id	282	KZH43	RS03215	WP	000613477.1		MIPVV	IEQTSGERSYDIYSRLKDRIIIMLTGPVEDNMANS	V	IAQLFLDAQDS	T	KD	IYLYVNTPGGSVSAG	72		
NTDB	id	246	SPD	RS03495	WP	000613477.1		MIPVV	IEQTSGERSYDIYSRLKDRIIIMLTGPVEDNMANS	V	IAQLFLDAQDS	T	KD	IYLYVNTPGGSVSAG	72		
NTDB	id	244	SPR	RS03300	WP	000613477.1		MIPVV	IEQTSGERSYDIYSRLKDRIIIMLTGPVEDNMANS	V	IAQLFLDAQDS	T	KD	IYLYVNTPGGSVSAG	72		
NTDB	id	242	SP	RS03655	WP	000613477.1		MIPVV	IEQTSGERSYDIYSRLKDRIIIMLTGPVEDNMANS	V	IAQLFLDAQDS	T	KD	IYLYVNTPGGSVSAG	72		
NTDB	id	330	STU	RS11365	WP	002949732.1		MIPVV	IEQTSGERSYDIYSRLKDRIIIMLTGPIEDNMANS	I	IAQLFLDAQDN	T	KD	IYLYVNTPGGSVSAG	72		
NTDB	id	298	STER	RS01925	WP	002949732.1		MIPVV	IEQTSGERSYDIYSRLKDRIIIMLTGPIEDNMANS	I	IAQLFLDAQDN	T	KD	IYLYVNTPGGSVSAG	72		
NTDB	id	446	SpyM6JR5A	RS01695	WP	002985850.1		MIPVV	IEQTSGERSYDIYSRLKDRIIIMLTGPVEDNMANS	V	IAQLFLDAQDN	T	KD	IYLYVNTPGGSVSAG	72		
NTDB	id	445	SPYM3	RS01720	WP	002985850.1		MIPVV	IEQTSGERSYDIYSRLKDRIIIMLTGPVEDNMANS	V	IAQLFLDAQDN	T	KD	IYLYVNTPGGSVSAG	72		
NTDB	id	376	SMU	RS07595	WP	255262720.1	MELKEKYSL	MIPVV	IEQTSGERSYDIYSRLKDRIIIMLTGPVEDNMANS	I	IAQLFLDAQDN	T	KD	IYLYINSPGGSVSAG	80		
NTDB	id	86	BSU	34540	NP	391334.1		MNLI	PVTVEIETNRGERAYDIYSRLKDRIIIMLGSATIDNVANS	I	VSQLLFLAAE	DPEKEISLYINSPGGSITAG	74				
NTDB	id	1223	Cj0192c	YP	002343650.1		MFIPY	VIIEKSSRGERSYDIYSRLKDRIIIMLSGEIHDELAAAS	I	VAQLLFLEADP	T	KD	IYLYINSPGGVITS	73			
							consensus		**!*	*!!**!	*	*****	!!!!!!!	****	***!	*****	*****

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	G	Q	G	T	Q	T	D	M	A	I	V	A	E	Q	L	L	K	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	Q	G	T	Q	T	D	M	A	I	V	A	E	Q	L	L	K	R	K	R	L	E	Q	155		
NTDB	id	206048	BMJ42	RS04265	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	T	Q	T	D	M	A	I	A	A	E	H	L	L	K	R	N	T	L	E	K	152
NTDB	id	282	KZH43	RS03215	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	T	Q	T	D	M	A	I	A	A	E	H	L	L	K	R	N	T	L	E	K	152
NTDB	id	246	SPD	RS03495	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	T	Q	T	D	M	A	I	A	A	E	H	L	L	K	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	T	Q	T	D	M	A	I	A	A	E	H	L	L	K	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	T	Q	T	D	M	A	I	A	A	E	H	L	L	K	R	N	T	L	E	K	152
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	T	Q	T	D	M	A	I	A	A	E	H	L	L	K	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	T	Q	T	D	M	A	I	A	A	E	H	L	L	K	R	N	N	L	E	Q	152			
NTDB	id	446	SpyM6	JRS4	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	T	Q	T	D	M	A	I	A	A	E	H	L	L	K	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	T	Q	T	D	M	A	I	A	A	E	H	L	L	K	R	H	R	L	E	K	152		
NTDB	id	376	SMU	RS07595	WP	255262720.1	LAIVDTMNF	IKS	DVQ	TIV	MG	T	A	ASMG	T																																														

NTDB id	602 KW2 RS03060 WP 011834647.1	ILADNSNRSL E QTHKDAERDHWMDAKETLEYGFIDEIMENNSLK.	199
NTDB id	611 V4T04 RS07970 WP 003129593.1	ILADNSNRSL E QTHKDAERDHWMDAKETLEYGFIDEIMENNSLK.	199
NTDB id	206048 BMJ42 RS04265 WP 000613477.1	ILAENSQGSM E KVHADAERDNWMSAQETLEYGFIDEIMANNSLN.	196
NTDB id	282 KZH43 RS03215 WP 000613477.1	ILAENSQGSM E KVHADAERDNWMSAQETLEYGFIDEIMANNSLN.	196
NTDB id	246 SPD RS03495 WP 000613477.1	ILAENSQGSM E KVHADAERDNWMSAQETLEYGFIDEIMANNSLN.	196
NTDB id	244 SPR RS03300 WP 000613477.1	ILAENSQGSM E KVHADAERDNWMSAQETLEYGFIDEIMANNSLN.	196
NTDB id	242 SP RS03655 WP 000613477.1	ILAENSQGSM E KVHADAERDNWMSAQETLEYGFIDEIMANNSLN.	196
NTDB id	330 STU RS11365 WP 002949732.1	ILADNSGQP I EKVHVDAERDNWMSAQETLEYGFIDEIMTNQLK.	196
NTDB id	298 STER RS01925 WP 002949732.1	ILADNSGQP I EKVHVDAERDNWMSAQETLEYGFIDEIMTNQLK.	196
NTDB id	446 SpyM6JRS4 RS01695 WP 002985850.1	ILAAQNAGKT I KQTHKDAERDYWMSAEETLAYGFIDEIMENNELK.	196
NTDB id	445 SPYM3 RS01720 WP 002985850.1	ILAAQNAGKT I KQTHKDAERDYWMSAEETLAYGFIDEIMENNELK.	196
NTDB id	376 SMU RS07595 WP 255262720.1	ILSDNSGKT I KQTHKDAERDYWMDAKETLKYGFIDEIMENNELK.	204
NTDB id	86 BSU 34540 NP 391334.1	VLAERTTGQPL E VIERDTDRDNFKSAEEALEYGLIDKILTHTEDKK	197
NTDB id	1223 Cj0192c YP 002343650.1	ILAKNITIKQKVAKI A KDTERDFFMSAQEAKKEYGLIDKVLKSFK..	194
consensus		*!*****!!***!!****!*!*****!?!*****!?!*****!	

 non conserved
 similar
 $\geq 50\%$ conserved