

NTDB id	602	KW2	RS03060	WP	011834647.1	MGYL	VPTVIEQSSRGERAYDIYSRLKDRIIIMLTGVPVEDGMANSIIAQLFLDQAQDN	TKDIYLYVNTPGGSVSAG	75
NTDB id	611	V4T04	RS07970	WP	003129593.1	MGYL	VPTVIEQSSRGERAYDIYSRLKDRIIIMLTGVPVEDGMANSIIAQLFLDQAQDN	TKDIYLYVNTPGGSVSAG	75
NTDB id	330	STU	RS11365	WP	002949732.1	MIP	VVIEQTSGERSYDIYSRLKDRIIIMLTGPIEDNMANSIIAQLFLDQAQDN	TKDIYLYVNTPGGSVSAG	72
NTDB id	298	STER	RS01925	WP	002949732.1	MIP	VVIEQTSGERSYDIYSRLKDRIIIMLTGPIEDNMANSIIAQLFLDQAQDN	TKDIYLYVNTPGGSVSAG	72
NTDB id	282	KZH43	RS03215	WP	000613477.1	MIP	VVIEQTSGERSYDIYSRLKDRIIIMLTGVPEDNMANSVIAQLFLDQAQS	TKDIYLYVNTPGGSVSAG	72
NTDB id	246	SPD	RS03495	WP	000613477.1	MIP	VVIEQTSGERSYDIYSRLKDRIIIMLTGVPEDNMANSVIAQLFLDQAQS	TKDIYLYVNTPGGSVSAG	72
NTDB id	244	SPR	RS03300	WP	000613477.1	MIP	VVIEQTSGERSYDIYSRLKDRIIIMLTGVPEDNMANSVIAQLFLDQAQS	TKDIYLYVNTPGGSVSAG	72
NTDB id	242	SP	RS03655	WP	000613477.1	MIP	VVIEQTSGERSYDIYSRLKDRIIIMLTGVPEDNMANSVIAQLFLDQAQS	TKDIYLYVNTPGGSVSAG	72
NTDB id	446	SpyM6JRS4	RS01695	WP	002985850.1	MIP	VVIEQTSGERSYDIYSRLKDRIIIMLTGVPEDNMANSVIAQLFLDQAQDN	TKDIYLYVNTPGGSVSAG	72
NTDB id	445	SPYM3	RS01720	WP	002985850.1	MIP	VVIEQTSGERSYDIYSRLKDRIIIMLTGVPEDNMANSVIAQLFLDQAQDN	TKDIYLYVNTPGGSVSAG	72
NTDB id	376	SMU	RS07595	WP	255262720.1	MELKEKYS	MIPVVIEQTSGERSYDIYSRLKDRIIIMLTGVPEDNMANSIIAQLFLDQAQDN	TKDIYLYINSPGGSVSAG	80
NTDB id	1223	Cj0192c	YP	002343650.1	MF	IPTYVIEKSSRGERSYDIYSRLKDRIIIMLSGEIHDELAASIVAQLLFLAEADP	TKDIYLYINSPGGVITSG	73	
NTDB id	982179	MKY36	RS19810	WP	003185550.1	MNL	IPTVIEQTNRGERAYDIYSRLKDRIIIMLGSAIDNVANSIVSQLLFLEADEDPEKDISTIYNISPGGSITAG	74	
NTDB id	86	BSU	34540	NP	391334.1	MNL	IPTVIEQTNRGERAYDIYSRLKDRIIIMLGSAIDNVANSIVSQLLFLAAEADPEKEISLIYNISPGGSITAG	74	
consensus							**!*!*	*****!*****!*****!*****!*****!*****!*****!*****!*****!	

NTDB id	602	KW2	RS03060	WP	011834647.1	LAIVDTMNFIKS	DVQTI	VMGMAASMG	TIASSGT	TGKGRFMLPNAEYL	LHQPMGGAGQG	TQTQTDMAIVA	EAEQLL	KTRKRLE	Q	155
NTDB id	611	V4T04	RS07970	WP	003129593.1	LAIVDTMNFIKS	DVQTI	VMGMAASMG	TIASSGT	TGKGRFMLPNAEYL	LHQPMGGTGQG	TQTQTDMAIVA	EAEQLL	KTRKRLE	Q	155
NTDB id	330	STU	RS11365	WP	002949732.1	LAIVDTMNFIKS	DVQTI	VMGMAASMG	TIASSGT	TGKGRFMLPNAEYMIHQP	MGGTGGGTQQT	TDMAIAAAEHLL	KTRNNLE	Q	152	
NTDB id	298	STER	RS01925	WP	002949732.1	LAIVDTMNFIKS	DVQTI	VMGMAASMG	TIASSGT	TGKGRFMLPNAEYMIHQP	MGGTGGGTQQT	TDMAIAAAEHLL	KTRNNLE	Q	152	
NTDB id	282	KZH43	RS03215	WP	000613477.1	LAIVDTMNFIKA	DVQTI	VMGMAASMG	TVIASSG	AKGKRFMLPNAEYMIHQP	MGGTGGGTQQT	TDMAIAAAEHLL	KTRNTE	LEK	152	
NTDB id	246	SPD	RS03495	WP	000613477.1	LAIVDTMNFIKA	DVQTI	VMGMAASMG	TVIASSG	AKGKRFMLPNAEYMIHQP	MGGTGGGTQQT	TDMAIAAAEHLL	KTRNTE	LEK	152	
NTDB id	244	SPR	RS03300	WP	000613477.1	LAIVDTMNFIKA	DVQTI	VMGMAASMG	TVIASSG	AKGKRFMLPNAEYMIHQP	MGGTGGGTQQT	TDMAIAAAEHLL	KTRNTE	LEK	152	
NTDB id	242	SP	RS03655	WP	000613477.1	LAIVDTMNFIKA	DVQTI	VMGMAASMG	TVIASSG	AKGKRFMLPNAEYMIHQP	MGGTGGGTQQT	TDMAIAAAEHLL	KTRNTE	LEK	152	
NTDB id	446	SpyM6JRS4	RS01695	WP	002985850.1	LAIVDTMNFIKA	DVQTI	VMGMAASMG	TVIASSG	TGKGRFMLPNAEYMIHQP	MGGTGGGTQQT	TDMAIAAAEHLL	KTRHRLE	K	152	
NTDB id	445	SPYM3	RS01720	WP	002985850.1	LAIVDTMNFIKA	DVQTI	VMGMAASMG	TVIASSG	TGKGRFMLPNAEYMIHQP	MGGTGGGTQQT	TDMAIAAAEHLL	KTRHRLE	K	152	
NTDB id	376	SMU	RS07595	WP	255262720.1	LAIVDTMNFIKS	DVQTI	VMGTAASMG	TIASSGT	AKGKRFMLPNAEYLI	HQPMGGTGGGTQQ	SDMAIAAEQLL	KTRKKLE	K	160	
NTDB id	1223	Cj0192c	YP	002343650.1	F	SIYDTMN	YIKP	DVCTICIGQAASMG	AFLLSCGAEGKRFALPN	SRI	MIHQPLGGARG..	QATDIEIQAKEILRL	KITIND		151	
NTDB id	982179	MKY36	RS19810	WP	003185550.1	M	AIYDTMQFIKPQVS	TI	CTGMAASMG	AFLLAAGEK	GKRYALPNSEV	MIHQPLGGAQG..	QATEIEIAAKRILSL	RDKLNK		152
NTDB id	86	BSU	34540	NP	391334.1	M	AIYDTMQFIKPQVS	TI	CI	GMAASMG	AFLLAAGEK	GKRYALPNSEV	MIHQPLGGAQG..	QATEIEIAAKRILSL	RDKLNK	152
consensus						**	!	*	!	*!!	***	*****	*****	*****	*****	!*

NTDB id	602	KW2	RS03060	WP	011834647.1	ILADNSNRSLQIHKDAERDHWMDAKETLEYGFIDEIMENNSLK..	199
NTDB id	611	V4T04	RS07970	WP	003129593.1	ILADNSNRSLQIHKDAERDHWMDAKETLEYGFIDEIMENNSLK..	199
NTDB id	330	STU	RS11365	WP	002949732.1	ILADNSGQPPIEKVHVDAERDNWMSAQETLEYGFIDEIMTNQLK..	196
NTDB id	298	STER	RS01925	WP	002949732.1	ILADNSGQPPIEKVHVDAERDNWMSAQETLEYGFIDEIMTNQLK..	196
NTDB id	282	KZH43	RS03215	WP	000613477.1	ILAENSQGSMSEKVHADAERDNWMSAQETLEYGFIDEIMANNSLN..	196
NTDB id	246	SPD	RS03495	WP	000613477.1	ILAENSQGSMSEKVHADAERDNWMSAQETLEYGFIDEIMANNSLN..	196
NTDB id	244	SPR	RS03300	WP	000613477.1	ILAENSQGSMSEKVHADAERDNWMSAQETLEYGFIDEIMANNSLN..	196
NTDB id	242	SP	RS03655	WP	000613477.1	ILAENSQGSMSEKVHADAERDNWMSAQETLEYGFIDEIMANNSLN..	196
NTDB id	446	SpyM6JRS4	RS01695	WP	002985850.1	ILAAQNAGKTIKKIHKAERDYWMSAEETLAYGFIDEIMENNELK..	196
NTDB id	445	SPYM3	RS01720	WP	002985850.1	ILAAQNAGKTIKKIHKAERDYWMSAEETLAYGFIDEIMENNELK..	196
NTDB id	376	SMU	RS07595	WP	255262720.1	ILSDNSGKTIKKIHKAERDYWMDAKETLKYGFIDEIMENNELK..	204
NTDB id	1223	Cj0192c	YP	002343650.1	ILAKNTIKQKVAKIAKDTERDFFMASQAQEAKEYGLIDKVLKSFK..	194	
NTDB id	982179	MKY36	RS19810	WP	003185550.1	ILAERTGGPLEVIERDTDRDNFKTAEEAKEYGLIDKVLTRNIDAQK	198
NTDB id	86	BSU	34540	NP	391334.1	VLAERTGGPLEVIERDTDRDNFKSAEEALEYGLIDKILTHTEDKK.	197
consensus						*!*****!*****!*!!*!!*!!*!!*!!*!!*!!*!!*!!*!!*!!*!!*	

 non conserved
 similar
 $\geq 50\%$ conserved