

NTDB id 458 SSUD9 RS00355 WP 002935296.1	MNDKEFGQRRVRQLRESASMTREQFCDDELELSVRQLTRIEAGASKPTFSKIQYIATRGLMGLYELM.PDYVSLPE	74
NTDB id 455 SSU RS00330 WP 012774888.1	MNDKEFGQRRVRQLRESASMTREQFCDDELELSVRQLTRIEAGASKPTFSKIQYIATRGLMGLYELM.PDYVSLPE	74
NTDB id 465 SSUO5 0053 ABP89025.1	MEVWFMNDKEFGQRRVRQLRESASMTREQFCDDELELSVRQLTRIEAGASKPTFSKIQYIATRGLMGLYELM.PDYVSLPE	79
NTDB id 451 SPYM18 RS00325 WP 002986681.1	MLEHFGGKKVKVLRLLEKRIISREDLCGDESSELSVRQLARIELGQSIPSLSKVIFIAKALNVSVGYLTDGDADLLEPK	74
NTDB id 443 SPYM3 RS00325 WP 011054099.1	MLEHFGGKKVKVLRLLEKRIISREDLCGDESSELSVRQLARIELGQSIPSLSKVIFIAKALNVSVGYLTDGDADLLEPK	74
NTDB id 45 SMU RS00375 WP 002263400.1	MLKD FGKKIKS LRLLEKGLTKAEAVCLDES QLSTRQLTRIESQGSP TPLNKAVYIAGR LGVT LGYLT DGE NVELPS	74
NTDB id 1127706 FGL05 RS08580 WP 111712550.1	MEKFGEKIRLMREEKEISREEFYCGDET ELSVRQLARIELNQSI PNLSKASF IANRLGVKLGT LTDGDS LE PK	73
NTDB id 555 STRINF RS01865 WP 174221231.1	MREEKEISREEFYCGDET ELSVRQLARIELNQSI PNLSKASF IANRLGVKLGT LTDGDS LE PK	63
consensus	* * * * *	

NTDB id 458 SSUD9 RS00355 WP 002935296.1	RYSK	LKFD	VLRTPTYG	NEDLA	EKR	DAMMT	EIYD	DYYDEL	LPEEEK	IVVD	TLCSLF	DVLD	IDSQE	YGKE	ILDD	DYLVH	QSYH	RS	154			
NTDB id 455 SSU RS00330 WP 012774888.1	RYSK	LKFD	VLRTPTYG	NEDLA	EKR	DAMMT	EIYD	DYYDEL	LPEEEK	IAIDA	IQSR	IDTLE	SGTAG	FGKE	ILED	YFEQ	IFRKR	RS	154			
NTDB id 465 SSU05 0053 ABP89025.1	RYSK	LKFD	VLRTPTYG	NEDLA	EKR	DAMMT	EIYD	DYYDEL	LPEEEK	IAIDA	IQSR	IDTLE	SGTAG	FGKE	ILED	YFEQ	IFRKR	RS	159			
NTDB id 451 SPYM18 RS00325 WP 002986681.1	RYKEL	KYL	ILRTPTYM	DGKL	QVREEQ	FDEI	FEDYYDK	LPEEEK	II	IDCL	QATL	DTLL	SENT	NGFI	DL	LQ	EYFN	IKTKV	RS	154		
NTDB id 443 SPYM3 RS00325 WP 011054099.1	RYKEL	KYL	ILRTPTYM	DGKL	QVREEQ	FDEI	FEDYYDK	LPEEEK	VAVDI	IQAK	FVYQ	TGDIN	FGYS	ILKE	FLP	QLKR	RS	154				
NTDB id 45 SMU RS00375 WP 002263400.1	RYKEL	KYL	ILRTPTYG	DQRL	LAKE	ETYF	DEI	FSQ	FYDD	LPEEEQ	LI	IDGL	LQSK	LDI	HFS	DNID	FGVG	ILND	YFD	QILRKT	RS	154
NTDB id 1127706 FGL05 RS08580 WP 111712550.1	RYKEL	KYL	ILRTPTYG	DQVRL	DRK	NDY	FDEI	AEV	FYDV	IPEEER	LI	IDCL	LQSK	FDV	HFS	EDVN	FGEG	ILND	YFG	QVNRKK	RS	153
NTDB id 555 STRINF RS01865 WP 174221231.1	RYKEL	KYL	ILRTPTYG	DQVRL	DRK	NDY	FDEI	AEV	FYDV	IPEEER	LI	IDCL	LQSK	FDV	HFS	EDVN	FGEG	ILND	YFG	QVNRKK	RS	143
consensus	!!	***	!!	***	!!!!	!!!!	!!!!	***	*****	!!!!	*****	!!	*****	!!!!	*****	!!!!	*****	!!	*****	!!!!	*****	!!

NTDB id 458 SSUD9 RS00355 WP 002935296.1	KLS	I	N	D	L	M	I	L	R	L	F	I	E	H	C	Q	E	D	L	S	V	G	T	S	N	Y	A	L	F	T	D	L	I	E	K	L	P	Q	S	I	Y	D	V	H	S	E	S	L	F	I	V	R	D	L	F	L	A	I	V	R	I	L	F	S	K	E	L	Y	N	H	T	P	V	Y	T	E	K	234	
NTDB id 455 SSU RS00330 WP 012774888.1	K	Y	E	L	N	D	L	L	I	V	R	L	H	L	E	Y	V	R	L	S	S	.	.	C	D	S	E	I	F	R	Q	F	L	K	I	I	E	H	L	H	E	Q	I	N	I	I	N	S	N	D	L	F	V	L	R	D	T	L	L	S	C	V	N	I	L	G	S	K	K	Y	Y	E	P	K	I	F	D	S	232
NTDB id 465 SSU05 0053 ABP89025.1	K	Y	E	L	N	D	L	L	I	V	R	L	H	L	E	Y	V	R	L	S	S	.	.	C	D	S	E	I	F	R	Q	F	L	K	I	I	E	H	L	H	E	Q	I	N	I	I	N	S	N	D	L	F	V	L	R	D	T	L	L	S	C	V	N	I	L	G	S	K	K	Y	Y	E	P	K	I	F	D	S	237
NTDB id 451 SPYM18 RS00325 WP 002986681.1	R	R	Q	R	N	D	L	L	L	E	L	Y	L	A	I	D	I	E	G	M	D	G	Q	Y	S	D	K	I	F	Y	D	S	L	L	D	N	L	S	E	Q	F	E	Q	F	E	D	L	E	F	I	V	N	K	I	I	D	I	S	S	L	K	N	N	R	L	D	N	L	E	K	A	T	E	M	234				
NTDB id 443 SPYM3 RS00325 WP 011054099.1	I	Y	N	L	N	E	L	L	I	D	L	Y	L	I	I	L	V	V	S	H	F	S	D	D	I	F	D	V	Q	F	Y	E	E	T	E	S	M	L	K	Q	H	N	N	L	S	L	E	D	L	F	L	L	N	N	I	L	L	S	C	A	D	T	Y	I	R	L	K	M	F	G	H	L	K	E	T	L	Q	L	234
NTDB id 45 SMU RS00375 WP 002263400.1	N	Y	Q	V	N	D	L	L	I	D	L	Y	F	S	C	L	T	V	S	G	L	D	S	A	I	F	D	S	R	K	Y	N	Q	L	L	E	T	L	L	K	Q	V	D	C	L	P	L	E	D	L	F	V	L	N	N	V	L	L	N	N	F	G	L	L	E	L	K	K	Y	D	F	V	K	Q	L	I	A	V	234
NTDB id 1127706 FGL05 RS08580 WP 111712550.1	V	F	T	I	N	D	L	L	I	D	L	Y	F	A	C	L	S	S	A	K	K	F	E	G	I	Y	S	L	N	F	Y	D	D	L	M	K	R	L	V	N	Q	K	H	V	S	P	E	T	D	.	L	I	L	N	N	V	L	L	N	N	I	D	L	A	F	Q	F	K	R	E	Y	I	E	R	V	I	T	I	232
NTDB id 555 STRINF RS01865 WP 174221231.1	V	F	T	I	N	D	L	L	I	D	L	Y	F	A	C	L	S	S	A	K	K	F	E	G	I	Y	S	L	N	F	Y	D	D	L	M	K	R	L	V	N	Q	K	H	V	S	P	E	T	D	.	L	I	L	N	N	V	L	L	N	N	I	D	L	A	F	Q	F												

NTDB id 458 SSUD9 RS00355 WP 002935296.1	IENIMELSDQDFQKKPIINLVKWKYELKVQHHEIAERYNEAITFASLINQFHLKEKLQMWEKDDTQSLKR	305
NTDB id 455 SSU RS00330 WP 012774888.1	VDKIITQSTQDFQKKPIVSVLKWKYALFVDKDRDEAEKHLYLDAVLFAKLIENRELEQKIIEEDWRVDNQ....	299
NTDB id 465 SSU05 0053 ABP89025.1	VDKIITQSTQDFQKKPIVSVLKWKYALFVDKDRDEAEKHLYLDAVLFAKLIENRELEQKIIEEDWRVDNQ....	304
NTDB id 451 SPYM18 RS00325 WP 002986681.1	SQKIMAKIQDWNRMPIQLKIEWKYFLIKQDKIIKAEQSFMKACLFQAQTADQYLENKLKIQEWKDVKSY..	303
NTDB id 443 SPYM3 RS00325 WP 011054099.1	SHFIMSTIQDFQKMPMYCMYEWKLSEFYLDKIDNRARNYFEQSILFTQMTGDTYLVSQKLRGEWNKDIDHYI..	303
NTDB id 45 SMU RS00375 WP 002263400.1	SNKIMDRTHDFQKKPIVNLLITWKHHHVFVEKDYAEAKKSYDAAILFAQLTENINLRENLEKEWQKDSQNGT.	304
NTDB id 1127706 FGL05 RS08580 WP 111712550.1	SEKIMTEIHDFQRRPILSLVEWKYYLKFKHDFALAEQSFTNATLTFARLVGDITYLENKLKEEWWQLDIDAVE.	302
NTDB id 555 STRINF RS01865 WP 174221231.1	SEKIMTEIHDFQRRPILSLVEWKYYLKLKHFALAEQSFTNATLTFARLVGDITYLENKLKEEWWQLDIDAVE.	292
consensus	***!* *!*****! ** !*! * * * * *	

 non conserved
 similar
 $\geq 50\%$ conserved