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NTDB id 450 SPYM18 RS08475 WP 011018214.1
NTDB id 449 SPYM18 RS01395 WP 011018214.1
NTDB id 442 SPYM3 RS08515 WP 011106595.1
NTDB id 441 SPYM3 RS01385 WP 011106595.1
NTDB id 448 SpyM6JRS4 RS07800 WP 010921894.1
NTDB id 447 SpyM6JRS4 RS01370 WP 010921894.1
NTDB id 554 STRINF RS00370 WP 115283725.1
NTDB id 320 STU RS10340 WP 002949220.1
NTDB id 47 STER RS00925 WP 002949220.1
NTDB id 50 STRSA0001 RS07545 WP 002885610.1
NTDB id 468 HSISS4 RS00725 WP 021143466.1
NTDB id 457 SSUD9 RS00080 WP 002936602.1
NTDB id 461 GPW51 RS00080 WP 011921639.1
NTDB id 454 SSU RS00080 WP 011921639.1
NTDB id 44 SMU RS09085 WP 002263585.1
NTDB id 252 KZH43 RS09050 WP 000588897.1
NTDB id 251 KZH43 RS09050 WP 000588897.1
NTDB id 211 SPD RS09675 WP 000588897.1
NTDB id 210 SPD RS00065 WP 000588897.1
NTDB id 177 SPR RS09210 WP 000588897.1
NTDB id 176 SPR RS00065 WP 000588897.1
NTDB id 141 SP RS10155 WP 000588925.1
NTDB id 140 SP RS00070 WP 000588925.1
NTDB id 489 SM12261 RS01070 WP 000471940.1
NTDB id 488 SM12261 RS00065 WP 000471939.1
NTDB id 517 SMSK321 RS10700 WP 000471945.1
NTDB id 516 SMSK321 RS09125 WP 000471944.1
NTDB id 67231 SITYG RS00080 WP 096362333.1
NTDB id 424 SGO RS10430 WP 012130755.1
NTDB id 423 SGO RS08370 WP 012130755.1

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	MSCCFFVVLFILGIVKKRRLKMSIETRAAF	EKVVKPIILKLKRHHYYIQ	LWDRD	DWLQEGHIILLQLLERYPELIEEEERL	80
	MSCCFFVVLFILGIVKKRRLKMSIETRAAF	EKVVKPIILKLKRHHYYIQ	LWDRD	DWLQEGHIILLQLLERYPELIEEEERL	80
	MSCCFFVVLFILGIVKKRRLKMSIETRAVF	EKVVKPIILKLKRHHYYIQ	LWDRD	DWLQEGHIILLQLLERYPELIEEEERL	80
	MSCCFFVVLFILGIVKKRRLKMSIETRAVF	EKVVKPIILKLKRHHYYIQ	LWDRD	DWLQEGHIILLQLLERYPELIEEEERL	80
	MSCCFFVVLFILGIVKKRRLKMSIETRAAF	EKVVKPIILKLKRHHYYIQ	LWDRD	DWLQEGHIILLQLLERYPELIEEEERL	80
	MSCCFFVVLFILGIVKKRRLKMSIETRAAF	EKVVKPIILKLKRHHYYIQ	LWDRD	DWLQEGHIILLQLLERYPELIEEEERL	80
	MDFERYFQT	VKPIILKLRRHYPVKLWDYEDWIQEGRIVFFQLLEEHPDLLNNEGKC	56		
	MEQEVFVKAYEKVRP	IVLKAFRQYFIQLWDQADMEQEAMMTLYQLLKFPDLEKDDDKL	59		
	MEQEVFKAYEKVRP	IVLKAFRQYFIQLWDQADMEQEAMMTLYQLLKFPDLEKDDDKL	59		
	MEQEVFVHAYEVRP	IVLKASRQYFIQLWDADMEQEAMMTLYQLLEKFPELKSDDDKL	59		
	MEQEVFVHAYEVRP	IVLKASRQYFIQLWDQADMEQEAMMTLYQLLEKFPELKSDDDKL	59		
	MEFEKVVASVK	GIVNKARKEFYIKLWDRDDWEQEGMMTLFELLEAPWLVDQVQL	56		
	MEFEKVVASVK	GIVNKARKEFYIKLWDRDDWEQEGMMTLFELLEAPWLVDQVQL	56		
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	MEEDFEIVFNKVKP	IWKLSRYFYFKMWTTREDWQQEGMLILHQLLREHPELEEDDTKL	58		
	MIKELYEBEQGT	VYKCRNEYYLHLWELSDWDQEGMLCLHELISREEGLVDDIPRL	55		
	MIKELYEBEQGT	VYKCRNEYYLHLWELSDWDQEGMLCLHELISREEGLVDDIPRL	55		
	MIKELYEBEQGT	VYKCRNEYYLHLWELSDWDQEGMLCLHELISREEGLVDDIPRL	55		
	MIKELYEBEQGT	VYKCRNEYYLHLWELSDWDQEGMLCLHELISREEGLVDDIPRL	55		
	MIKELYEBEQGT	VYKCRNEYYLHLWELSDWDQEGMLCLHELISREEGLVDDIPRL	55		
	MIKELYEBEQGT	VYKCRNEYYLHLWELSDWDQEGMLCLHELISREEGLVDDIPRL	55		
	MIKELYEBEQGT	VYKCRNEYYLHLWELSDWDQEGMLCLHELISREEGLVDDIPRL	55		
	MIKELYEBEQGT	VYKCRNEYYLHLWELSDWDQEGMLCLHELISREEGLVDDIPRL	55		
	MFKELYEBEQG	IVYKCRNEYYLHLWELSDWDQEGMICLHELISREEGLVEDIPRL	55		
	MFKELYEBEQG	IVYKCRNEYYLHLWELSDWDQEGMICLHELISREEGLVEDIPRL	55		
	MFKELYKEVQG	IVYKSRNEYYLHLWELSDWDQEGMICLHELISREEGLVEDIPRL	55		
	MFKELYKEVQG	IVYKSRNEYYLHLWELSDWDQEGMICLHELISKEELAEDIPRL	55		
	MDFKELYEKVR	GIVLKSREYYVHLWELSDWDQEGMMVLYELVSRHPLYVEEAHL	56		
	MKFDVYKQVE	GIVKRCYKDYHLWELSDWDQEGMLVLYELLKSHPNLLEDQPR	56		
	MKFEDVYKQVE	GIVKRCYKDYHLWELSDWDQEGMLVLYELLKSHPNLLEDQPR	56		

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NTDB id 450 SPYM18 RS08475 WP 011018214.1	YRYFKTKFSSYLKDLIRRRQESQKRQFHKLAYEEI	GEVAHAIPSRGLW.LDDYVAYQEV	IASLENQLNSQERMQFKAL	IRG	159
NTDB id 449 SPYM18 RS01395 WP 011018214.1	YRYFKTKFSSYLKDLIRRRQESQKRQFHKLAYEEI	GEVAHAIPSRGLW.LDDYVAYQEV	IASLENQLNSQERMQFKAL	IRG	159
NTDB id 442 SPYM3 RS08515 WP 011106595.1	YRYFKTKFSSYLKDLIRRRQESQKRQFHKLAYEEI	GEVAHAIPSRGLW.LDDYVAYQEV	IASLENQLNSQERMQFKAL	IRG	159
NTDB id 441 SPYM3 RS01385 WP 011106595.1	YRYFKTKFSSYLKDLIRRRQESQKRQFHKLAYEEI	GEVAHAIPSRGLW.LDDYVAYQEV	IASLENQLNSQERMQFKAL	IRG	159
NTDB id 448 SpyM6JRS4 RS07800 WP 010921894.1	YRYFKTKFSSYLKDLIRRRQESQKRQFHKLAYEEI	GEVAHAIPSRGLW.LDDYVAYQEV	IASLENQLNSQERMQFKAL	IRG	159
NTDB id 447 SpyM6JRS4 RS01370 WP 010921894.1	YRYFKTKFSSYLKDLIRRRQESQKRQFHKLAYEEI	GEVAHAIPSRGLW.LDDYVAYQEV	IASLENQLNSQERMQFKAL	IRG	159
NTDB id 554 STRINF RS00370 WP 115283725.1	YSYFKTKFSSNHVKDIIRHQESFKRKFNRMPEYEEI	SDISHCVQPVFFHEVEDYVAYQD	SLACLRRTLGRDRLKLEKVI	IRG	136
NTDB id 320 STU RS10340 WP 002949220.1	RRYFKTKFRNRLNDEVRRQESVKKRQANRQCYVEIS	SDIAFCIPNKELD.MVDRLAYDEQLNAFREQLS	SEDSCLKDRLLGG	IRG	138
NTDB id 47 STER RS00925 WP 002949220.1	RRYFKTKFRNRLNDEVRRQESVKKRQANRQCYVEIS	SDIAFCIPNKELD.MVDRLAYDEQLNAFREQLS	SEDSCLKDRLLGG	IRG	138
NTDB id 50 STRSA0001 RS07545 WP 002885610.1	RRYFKTKFRNRLNDEVRRQESVKKRQANRQCYVEIS	SDIAFCIPNKELD.AVDRLVYDEQLNAFRNQLS	SEDATKDRLLAG	IRG	138
NTDB id 468 HSISS4 RS00725 WP 021143466.1	RRYFKTKFRNRLNDEVRRQESVKKRQANRQCYVEIS	SDIAFCIPNKELD.AVDRLVYDEQLNAFRNQLS	SEDATKDRLLAG	IRG	138
NTDB id 457 SSUD9 RS00080 WP 002936602.1	YCYFKVKFRNRIRKDRIRKQESQKRKFDRMPHEDI	YELSHAIQSPGLI.NDELLMLRGALRDYRKNLS	NDQLDKYEKLISG	IRG	135
NTDB id 461 GPW51 RS00080 WP 011921639.1	YCYFKVKFRNRIRKDRIRKQESQKRKFDRMPHEDI	YELSHAIQSPGLI.NDELLMLRGALRDYRKNLS	NDQLDKYEKLISG	IRG	135
NTDB id 454 SSU RS00080 WP 011921639.1	YCYFKVKFRNRIRKDRIRKQESQKRKFDRMPHEDI	YELSHAIQSPGLI.NDELLMLRGALRDYRKNLS	NDQLDKYEKLISG	IRG	135
NTDB id 44 SMU RS09085 WP 002263585.1	YIYFKTRFSNYIKDVLRRQESQKRFRNRMSEYEEV	GEIEHCLSSGCMQ.LDEYILFRISLLAYKQGL	STKQELFERLVAG	IRG	137
NTDB id 252 KZH43 RS09050 WP 000588897.1	RKYFKTKFRNRLIDYIRKQESQKRRYDKEPYEEV	GEISHRISEGLW.LDDYVYLFHETLRD	YRNKQSKQKEELERVLSN	IRG	134
NTDB id 251 KZH43 RS09050 WP 000588897.1	RKYFKTKFRNRLIDYIRKQESQKRRYDKEPYEEV	GEISHRISEGLW.LDDYVYLFHETLRD	YRNKQSKQKEELERVLSN	IRG	134
NTDB id 211 SPD RS09675 WP 000588897.1	RKYFKTKFRNRLIDYIRKQESQKRRYDKEPYEEV	GEISHRISEGLW.LDDYVYLFHETLRD	YRNKQSKQKEELERVLSN	IRG	134
NTDB id 210 SPD RS00065 WP 000588897.1	RKYFKTKFRNRLIDYIRKQESQKRRYDKEPYEEV	GEISHRISEGLW.LDDYVYLFHETLRD	YRNKQSKQKEELERVLSN	IRG	134
NTDB id 177 SPR RS09210 WP 000588897.1	RKYFKTKFRNRLIDYIRKQESQKRRYDKEPYEEV	GEISHRISEGLW.LDDYVYLFHETLRD	YRNKQSKQKEELERVLSN	IRG	134
NTDB id 176 SPR RS00065 WP 000588897.1	RKYFKTKFRNRLIDYIRKQESQKRRYDKEPYEEV	GEISHRISEGLW.LDDYVYLFHETLRD	YRNKQSKQKEELERVLSN	IRG	134
NTDB id 141 SP RS10155 WP 000588925.1	RKYFKTKFRNRLIDYIRKQESQKRRYDKEPYEEV	GEISHRISEGLW.LDDYVYLFHETLRD	YRNKQSKQKEELERVLSN	IRG	134
NTDB id 140 SP RS00070 WP 000588925.1	RKYFKTKFRNRLIDYIRKQESQKRRYDKEPYEEV	GEISHRISEGLW.LDDYVYLFHETLRD	YRNKQSKQKEELERVLSN	IRG	134
NTDB id 489 SM12261 RS01070 WP 000471940.1	RKYFKTKFRNRLIDYIRKQESQKRRYDKEPYEEV	GEISHRISEGLW.LDEYVYLFHETLRD	YRNKQSKDKQKEELERVLRH	IRG	134
NTDB id 488 SM12261 RS00065 WP 000471939.1	RKYFKTKFRNRLIDYIRKQESQKRRYDKEPYEEV	GEISHRISEGLW.LDEYVYLFHETLRD	YRNKQSKDKQKEELERVLRH	IRG	134
NTDB id 517 SMSK321 RS10700 WP 000471945.1	RKYFKTKFRNRLIDYIRKQESQKRRYDKEAYEEV	GEISHRISEGLW.LDDYVYLFHETLRD	YRSKQSKDKQKEELERVLRH	IRG	134
NTDB id 516 SMSK321 RS09125 WP 000471944.1	RKYFKTKFRNRLIDYIRKQESQKRRYDKEAYEEV	GEISHRISEGLW.LDEYVYLFHETLRD	YRSKQSKDKQKEELERVLRH	IRG	134
NTDB id 67231 SITYG RS00080 WP 096362333.1	YVYVYKTKFRNHIKDILRRQESQKRKLDRQVYEEV	SEIGHKISLKGILY.LDELVLRLDQLKSYQKQL	SPAKQEQYERLLAD	IRG	135
NTDB id 424 SGO RS10430 WP 012130755.1	YRYFKTKFRNRIHDLIRRRQESQKRKLDRQPYEEV	SEIGHRLRMKELY.LDELVAFRSAMSEYRSRL	SPPEAKQYERLMAD	IRG	135
NTDB id 423 SGO RS08370 WP 012130755.1	YRYFKTKFRNRIHDLIRRRQESQKRKLDRQPYEEV	SEIGHRLRMKELY.LDELVAFRSAMSEYRSRL	SPPEAKQYERLMAD	IRG	135
consensus	*!*!***!***** ! *!*!!!!!!***** ***** * * *****				

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NTDB id 450 SPYM18 RS08475 WP 011018214.1	ERF K GRRA L LR K ISPY F KE F AQQL...	183
NTDB id 449 SPYM18 RS01395 WP 011018214.1	ERF K GRRA L LR K ISPY F KE F AQQL...	183
NTDB id 442 SPYM3 RS08515 WP 011106595.1	ERF K GRRA L LR K ISPY F KE F AQQL...	183
NTDB id 441 SPYM3 RS01385 WP 011106595.1	ERF K GRRA L LR K ISPY F KE F AQQL...	183
NTDB id 448 SpyM6JRS4 RS07800 WP 010921894.1	ERF K GRRA L LR K ISPY F KE F AQQL...	183
NTDB id 447 SpyM6JRS4 RS01370 WP 010921894.1	ERF K GRRA L LR K ISPY F KE F AQQL...	183
NTDB id 554 STRINF RS00370 WP 115283725.1	ERF E G K KA F L K SI E LY F S D FRP.....	158
NTDB id 320 STU RS10340 WP 002949220.1	ECF R GRKK M IRE L RFWM V DFDPCNEED	165
NTDB id 47 STER RS00925 WP 002949220.1	ECF R GRKK M IRE L RFWM V DFDPCNEED	165
NTDB id 50 STRSA0001 RS07545 WP 002885610.1	ECF R GRKK M IRE L KFW M VDFDPYNEDD	165
NTDB id 468 HSISS4 RS00725 WP 021143466.1	ECF R GRKK M IRE L KFW M VDFDPYNEDD	165
NTDB id 457 SSUD9 RS00080 WP 002936602.1	QCF N GRRE M IR D LQI H L K DFR.....	156
NTDB id 461 GPW51 RS00080 WP 011921639.1	QCF N GRRE M IR D LQI H L K DFR.....	156
NTDB id 454 SSU RS00080 WP 011921639.1	QCF N GRRE M IR D LQI H L K DFR.....	156
NTDB id 44 SMU RS09085 WP 002263585.1	EH F LGRQ S ML K DL R KK L S D FKEK....	160
NTDB id 252 KZH43 RS09050 WP 000588897.1	ERF R GRQ R VL R DL R IV F KE F TIR T H..	159
NTDB id 251 KZH43 RS09050 WP 000588897.1	ERF R GRQ R VL R DL R IV F KE F TIR T H..	159
NTDB id 211 SPD RS09675 WP 000588897.1	ERF R GRQ R VL R DL R IV F KE F TIR T H..	159
NTDB id 210 SPD RS00065 WP 000588897.1	ERF R GRQ R VL R DL R IV F KE F TIR T H..	159
NTDB id 177 SPR RS09210 WP 000588897.1	ERF R GRQ R VL R DL R IV F KE F TIR T H..	159
NTDB id 176 SPR RS00065 WP 000588897.1	ERF R GRQ R VL R DL R IV F KE F TIR T H..	159
NTDB id 141 SP RS10155 WP 000588925.1	ERF R GRQ R VL R DL R IV F KE F TIR T H..	159
NTDB id 140 SP RS00070 WP 000588925.1	ERF R GRQ R VL R DL R IV F KE F TIR T H..	159
NTDB id 489 SM12261 RS01070 WP 000471940.1	ERF R GRQ R VL R DL R IV F KE F DIR T H..	159
NTDB id 488 SM12261 RS00065 WP 000471939.1	ERF R GRQ R VL R DL R IV F KE F DIR T H..	159
NTDB id 517 SMSK321 RS10700 WP 000471945.1	ERF R GRQ R VL R DL R IV F KE F DIR T Q..	159
NTDB id 516 SMSK321 RS09125 WP 000471944.1	ERF R GRQ R VL R DL R IV F KE F DIR T R..	159
NTDB id 67231 SITYG RS00080 WP 096362333.1	ERF K GRQ A ML R EL R TY L K D YEM.....	157
NTDB id 424 SGO RS10430 WP 012130755.1	ERF K GRK A ML K DL S YHL R DFN P RLD..	160
NTDB id 423 SGO RS08370 WP 012130755.1	ERF K GRK A ML K DL S YHL R DFN P RLD..	160
consensus	***!*** * * * * *	

- ☒ non conserved
- ☒ similar
- ☒ ≥ 50% conserved