

logo

NTDB id 601 KW2 RS02615 WP 021036805.1	MLCQNCNI	NEAT	I	13		
NTDB id 281 KZH43 RS03550 WP 000882517.1	MLCQNCCK	INDST	I	13		
NTDB id 245 SPD RS03860 WP 000882517.1	MLCQNCCK	INDST	I	13		
NTDB id 243 SPR RS03635 WP 000882517.1	MLCQNCCK	INDST	I	13		
NTDB id 241 SP RS04015 WP 000882523.1	MLCQNCCK	INDST	I	13		
NTDB id 70159 HAS68 RS03505 WP 009909464.1	MLCKNCNI	INDAT	I	13		
NTDB id 378 SMU RS02690 WP 002263569.1	MLCQNCCK	LNEAT	I	13		
NTDB id 85 BSU 00860 NP 387967.1	..MMFGRFTE			RAQKVLALAQEEALRLGHNNIGTEHILLGLVREGEGIAAKALQALGLGSEKIQKEVESLIG.....RGQEMS	75	
NTDB id 610 V4T04 RS10165 WP 012897346.1	MKFENIKYTPTLDRILEKAEEYAHQYQYGTIESAHLAAMATTSGSTIAYSLLAGMNVDSDDLIDL.....EDLSSHVKVKR			77		
NTDB id 287 SP RS11210 WP 001109712.1	MNYSKALNECIESAYMVAGHFGARYLESWHLLIAMSNHSYSVAGATLNDYPYEMDRLE....EVALELTETDYSQDET			F	75	
NTDB id 290 KZH43 RS10025 WP 001109677.1	MNYSKALNECIESAYMVAGHFGARYLESWHLLIAMSNHSYSVAGATLNDYPYEMDRLE....EVALELTETDYSQDET			F	75	
NTDB id 289 SPD RS10700 WP 001109677.1	MNYSKALNECIESAYMVAGHFGARYLESWHLLIAMSNHSYSVAGATLNDYPYEMDRLE....EVALELTETDYSQDET			F	75	
NTDB id 377 SMU RS09275 WP 002262344.1	MTDYSLKMQEVFRLAQFEAARFESSYLESWHVLLAMVEIDSSVAGLSFAEF			EADVRFEDYQAAAAILAIGKKPKSSSN..DI	79	
NTDB id 297 STER RS00545 WP 011680614.1	MTIYSRKMQAIFHRAQLEAERFESPFL			ETWHVLLAMVEVTGSAVYLTFTDFEDRIHSEEIETA	AVLAMEKRPKDLSESDII	81
NTDB id 329 STU RS10020 WP 011225298.1	MTIYSRKMQAIFHRAQLEAERFESPFL			ETWHVLLAMVEVPGSAVYLTFTDFEDRIHSEEIETA	AVLAMEKRPKDLSESDII	81
consensus				* * *		*

logo

NTDB id 601 KW2 RS02615 WP 021036805.1	HLYTSVNGCQKKQIDLCQNCYQ...IMKSGGQ	EALFGAGNASNGNSDEPFNP.....FND	DIFSAL...QG...QDFNG	76
NTDB id 281 KZH43 RS03550 WP 000882517.1	HLYTNLNGKQKQIDLCQNCYK...I	IKTDPNNSLFKGMTD..LNNRD.FDP.....FGDFFNDL...NNFRPS....		72
NTDB id 245 SPD RS03860 WP 000882517.1	HLYTNLNGKQKQIDLCQNCYK...I	IKTDPNNSLFKGMTD..LNNRD.FDP.....FGDFFNDL...NNFRPS....		72
NTDB id 243 SPR RS03635 WP 000882517.1	HLYTNLNGKQKQIDLCQNCYK...I	IKTDPNNSLFKGMTD..LNNRD.FDP.....FGDFFNDL...NNFRPS....		72
NTDB id 241 SP RS04015 WP 000882523.1	HLYTNLNGKQKQIDLCQNCYK...I	IKTDPNNSLFKGMTD..LNNRD.FDP.....FGDFFNDL...NNFRPS....		72
NTDB id 70159 HAS68 RS03505 WP 009909464.1	HLYNNLNGKQKQVLDLCHNCYQ...IMKTDPNNA	ILRGLGD..LTNPNNMDP.....FSEFFNHL...GGYPGNT	PAG	77
NTDB id 378 SMU RS02690 WP 002263569.1	HLYANVNGCQKKQIDLCQNCYQ...IMKTDPE	NGPLNHL	SQ..QNSSSINPF.....FDDFFGDL...NNFRAFN..N	75
NTDB id 85 BSU 00860 NP 387967.1	QTIHYTPRAKKVIELSMDEARKLGHSYVGTEHILLGLIREGEGVAARVLNNLGVSLNKARQQVLQL.....	LGSNET....		147
NTDB id 610 V4T04 RS10165 WP 012897346.1	STLRFSPRAEEVMTAASFLAIHNNSEAVGTEHLLYALLQVEDGFGQLLLKL.....	QKINIVSLRKELEKRTGLKVPESKK		153
NTDB id 287 SP RS11210 WP 001109712.1	TELPFSRRLQVLFDEAEYVASVVHAKVLGTEHVL	YAILHDSNALATRILERAGFSYEDKKDQVKIAALRRNLEERAGWTREDLKA		160
NTDB id 290 KZH43 RS10025 WP 001109677.1	TELPFSRRLQILFDEAEYVASVVHAKVLGTEHVL	YAILHDSNALATRILERAGFSYEDKKDQVKIAALRRNLEERAGWTREDLKA		160
NTDB id 289 SPD RS10700 WP 001109677.1	TELPFSRRLQILFDEAEYVASVVHAKVLGTEHVL	YAILHDSNALATRILERAGFSYEDKKDQVKIAALRRNLEERAGWTREDLKA		160
NTDB id 377 SMU RS09275 WP 002262344.1	MLLEQSHALKRTLAEAAAI	SQVTHAKEVGTEHVLFAMLLNP	NLLATRILELVGFHAKDDGESIRLLDLRKVIERYAGFSKEDIKA	164
NTDB id 297 STER RS00545 WP 011680614.1	DLRAQSPALEAMLQEAQEIASVTGAVEVGEHVL	MAFLLHKDLMVCRILLEVAGFQYKDDSDKPRIIDLRRSLERNAGLSKQDLKA		166
NTDB id 329 STU RS10020 WP 011225298.1	DLRAQSPALEAMLQEAQGIASVTGAVEVGEHVL	MAFLLHKDLMVCRILLEVAGFQYKDDSDKPRIIDLRRSLERNAGLSKQDLKA		166
consensus				

logo

NTDB id 601 KW2 RS02615 WP 021036805.1	AASNQTPPTQTG.....RGPRGPQNPRAKQPKGMLLEFGINITESARRGEIDPVIGRDEEIKRVIEILNRRTKNNPVL	151
NTDB id 281 KZH43 RS03550 WP 000882517.1	SNTPIPTQSGGGYGGNGGYGSQNRGSAQTTPPSQEKGLEEFGINVTEIARRGIDDPVIGRDEEIRVIEILNRRTKNNPVL	157
NTDB id 245 SPD RS03860 WP 000882517.1	SNTPIPTQSGGGYGGNGGYGSQNRGSAQTTPPSQEKGLEEFGINVTEIARRGIDDPVIGRDEEIRVIEILNRRTKNNPVL	157
NTDB id 243 SPR RS03635 WP 000882517.1	SNTPIPTQSGGGYGGNGGYGSQNRGSAQTTPPSQEKGLEEFGINVTEIARRGIDDPVIGRDEEIRVIEILNRRTKNNPVL	157
NTDB id 241 SP RS04015 WP 000882523.1	SNTPIPTQSGGGYGGNGGYGSQNRGSAQTTPPSQEKGLEEFGINVTEIARRGIDDPVIGRDEEIRVIEILNRRTKNNPVL	157
NTDB id 70159 HAS68 RS03505 WP 009909464.1	KNREQTPTQAGEHNHGRG.GQT.PPP.....QQPQQPNGLLEFGINVTEIARRGIDDPVIGRDEEITRVIEILNRRTKNNPVL	155
NTDB id 378 SMU RS02690 WP 002263569.1	QDLPNTPTQAGGGNGNG.GNN.RRPGGPQQQASQKPNGLLEFGINLTDIARKGEIDPVIGRDEEITRVIEILNRRTKNNPVL	158
NTDB id 85 BSU 00860 NP 387967.1	GSSAAGTNSNANTPTLDSLARDLTAIAKEDSLDPVIGRSKEIQRVIEVLSRRTKNNPVL	207
NTDB id 610 V4T04 RS10165 WP 012897346.1	AVTPMSKRKMAKG.....VAENSTTPTLDSVSSDLTEEARLGKLDPMIGREAEIDRLIHILSRRTKNNPVL	220
NTDB id 287 SP RS11210 WP 001109712.1	.LRQRHRTV.ADKQ.....NSMANMMGMPQTPSGGLEDYTHDLTEQARSQKLEPVIGRDKEISRMIQILSRKTNNPVL	233
NTDB id 290 KZH43 RS10025 WP 001109677.1	.LRQRHRTV.ADKQ.....NSMANMMGMPQTPSGGLEDYTHDLTEQARSQKLEPVIGRDKEISRMIQILSRKTNNPVL	233
NTDB id 289 SPD RS10700 WP 001109677.1	.LRQRHRTV.ADKQ.....NSMANMMGMPQTPSGGLEDYTHDLTEQARSQKLEPVIGRDKEISRMIQILSRKTNNPVL	233
NTDB id 377 SMU RS09275 WP 002262344.1	.IFEMRKPKKVKNS.....SSFSDLMKPP.SVTGELADFTRLDELARQGRLEPVIGREQEISRMIQILSRKTNNPVL	237
NTDB id 297 STER RS00545 WP 011680614.1	.IHDLRKPKKSKAS.....ANFANMMQPPQSSTGELADYTKDLTALAESGNLDPVIGRDEEISRMIQVLSRKTNNPVL	240
NTDB id 329 STU RS10020 WP 011225298.1	.IHDLRKPKKSKAS.....ANFANMMQPPQSSTGELADYTKDLTALAESGNLDPVIGRDEEISRMIQVLSRKTNNPVL	240
consensus	* * ** * !*** * !*** * * !*** !*** * ! ! !*** * ! ! ! ! ! ! ! *	

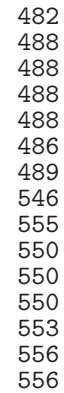
logo

NTDB id 601 KW2 RS02615 WP 021036805.1	GEPGVGKTAVVEGLAQKIVDGDVPQKQLQNKVIRLDVVSIVQGTGIRGQFEERMQKLMDEIRKRNDVIMFIDEIHEIVGAGSAGD	236
NTDB id 281 KZH43 RS03550 WP 000882517.1	GEPGVGKTAVVEGLAQKIVDGDVPQKQLQNKVIRLDVVSIVQGTGIRGQFEERMQKLMDEIRKRNDVIMFIDEIHEIVGAGSAGD	242
NTDB id 245 SPD RS03860 WP 000882517.1	GEPGVGKTAVVEGLAQKIVDGDVPQKQLQNKVIRLDVVSIVQGTGIRGQFEERMQKLMDEIRKRNDVIMFIDEIHEIVGAGSAGD	242
NTDB id 243 SPR RS03635 WP 000882517.1	GEPGVGKTAVVEGLAQKIVDGDVPQKQLQNKVIRLDVVSIVQGTGIRGQFEERMQKLMDEIRKRNDVIMFIDEIHEIVGAGSAGD	242
NTDB id 241 SP RS04015 WP 000882523.1	GEPGVGKTAVVEGLAQKIVDGDVPQKQLQNKVIRLDVVSIVQGTGIRGQFEERMQKLMDEIRKRNDVIMFIDEIHEIVGAGSAGD	242
NTDB id 70159 HAS68 RS03505 WP 009909464.1	GEPGVGKTAVVEGLAQKIVDGDVPQKLRDKEVIRLDVVSIVQGTGIRGQFEERMQKLMDEIRNRREIILFIDEIHEIVGAGSAGD	240
NTDB id 378 SMU RS02690 WP 002263569.1	GEPGVGKTAVVEGLAQKIVDGDVPQKHLGKNVIRLDVVSIVQGTGIRGQFEERMQKLMDEIRQRQDVILFIDEIHEIVGAGSAGD	243
NTDB id 85 BSU 00860 NP 387967.1	GEPGVGKTAVVEGLAQKIVDGDVPQKHLGKNVIRLDVVSIVQGTGIRGQFEERMQKLMDEIRQRQDVILFIDEIHEIVGAGSAGD	243
NTDB id 610 V4T04 RS10165 WP 012897346.1	GEPGVGKTAVVEGLAQKIVDGDVPQKHLGKNVIRLDVVSIVQGTGIRGQFEERMQKLMDEIRQRQDVILFIDEIHEIVGAGSAGD	243
NTDB id 287 SP RS11210 WP 001109712.1	GEPGVGKTAVVEGLAQKIVDGDVPQKHLGKNVIRLDVVSIVQGTGIRGQFEERMQKLMDEIRQRQDVILFIDEIHEIVGAGSAGD	243
NTDB id 290 KZH43 RS10025 WP 001109677.1	GEPGVGKTAVVEGLAQKIVDGDVPQKHLGKNVIRLDVVSIVQGTGIRGQFEERMQKLMDEIRQRQDVILFIDEIHEIVGAGSAGD	243
NTDB id 289 SPD RS10700 WP 001109677.1	GEPGVGKTAVVEGLAQKIVDGDVPQKHLGKNVIRLDVVSIVQGTGIRGQFEERMQKLMDEIRQRQDVILFIDEIHEIVGAGSAGD	243
NTDB id 377 SMU RS09275 WP 002262344.1	GEPGVGKTAVVEGLAQKIVDGDVPQKHLGKNVIRLDVVSIVQGTGIRGQFEERMQKLMDEIRQRQDVILFIDEIHEIVGAGSAGD	243
NTDB id 297 STER RS00545 WP 011680614.1	GEPGVGKTAVVEGLAQKIVDGDVPQKHLGKNVIRLDVVSIVQGTGIRGQFEERMQKLMDEIRQRQDVILFIDEIHEIVGAGSAGD	243
NTDB id 329 STU RS10020 WP 011225298.1	GEPGVGKTAVVEGLAQKIVDGDVPQKHLGKNVIRLDVVSIVQGTGIRGQFEERMQKLMDEIRQRQDVILFIDEIHEIVGAGSAGD	243
consensus	!***!!*!* *!!!!*!* **!! * ** !*****! !! !! !*** * * * * * * * * * * * * * * * *	


```

NTDB id 601 KW2 RS02615 WP 021036805.1
NTDB id 281 KZH43 RS03550 WP 000882517.1
NTDB id 245 SPD RS03860 WP 000882517.1
NTDB id 243 SPR RS03635 WP 000882517.1
NTDB id 241 SP RS04015 WP 000882523.1
NTDB id 70159 HAS68 RS03505 WP 009909464.1
NTDB id 378 SMU RS02690 WP 002263569.1
NTDB id 85 BSU 00860 NP 387967.1
NTDB id 610 V4T04 RS10165 WP 012897346.1
NTDB id 287 SP RS11210 WP 001109712.1
NTDB id 290 KZH43 RS10025 WP 001109677.1
NTDB id 289 SPD RS10700 WP 001109677.1
NTDB id 377 SMU RS09275 WP 002262344.1
NTDB id 297 STER RS00545 WP 011680614.1
NTDB id 329 STU RS10020 WP 011225298.1
consensus

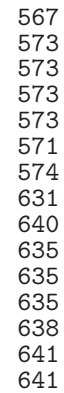
```



```

NTDB id 601 KW2 RS02615 WP 021036805.1
NTDB id 281 KZH43 RS03550 WP 000882517.1
NTDB id 245 SPD RS03860 WP 000882517.1
NTDB id 243 SPR RS03635 WP 000882517.1
NTDB id 241 SP RS04015 WP 000882523.1
NTDB id 70159 HAS68 RS03505 WP 009909464.1
NTDB id 378 SMU RS02690 WP 002263569.1
NTDB id 85 BSU 00860 NP 387967.1
NTDB id 610 V4T04 RS10165 WP 012897346.1
NTDB id 287 SP RS11210 WP 001109712.1
NTDB id 290 KZH43 RS10025 WP 001109677.1
NTDB id 289 SPD RS10700 WP 001109677.1
NTDB id 377 SMU RS09275 WP 002262344.1
NTDB id 297 STER RS00545 WP 011680614.1
NTDB id 329 STU RS10020 WP 011225298.1
consensus

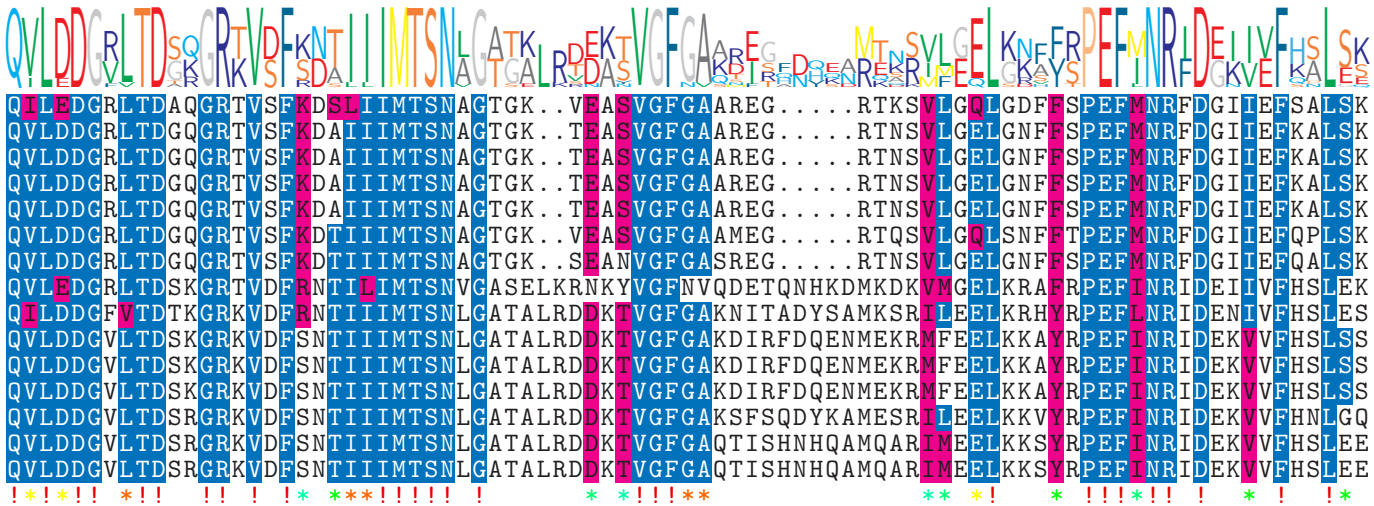
```



```

NTDB id 601 KW2 RS02615 WP 021036805.1
NTDB id 281 KZH43 RS03550 WP 000882517.1
NTDB id 245 SPD RS03860 WP 000882517.1
NTDB id 243 SPR RS03635 WP 000882517.1
NTDB id 241 SP RS04015 WP 000882523.1
NTDB id 70159 HAS68 RS03505 WP 009909464.1
NTDB id 378 SMU RS02690 WP 002263569.1
NTDB id 85 BSU 00860 NP 387967.1
NTDB id 610 V4T04 RS10165 WP 012897346.1
NTDB id 287 SP RS11210 WP 001109712.1
NTDB id 290 KZH43 RS10025 WP 001109677.1
NTDB id 289 SPD RS10700 WP 001109677.1
NTDB id 377 SMU RS09275 WP 002262344.1
NTDB id 297 STER RS00545 WP 011680614.1
NTDB id 329 STU RS10020 WP 011225298.1
consensus

```



645
651
651
651
651
649
652
716
725
720
720
720
723
726
726

```

NTDB id 601 KW2 RS02615 WP 021036805.1
NTDB id 281 KZH43 RS03550 WP 000882517.1
NTDB id 245 SPD RS03860 WP 000882517.1
NTDB id 243 SPR RS03635 WP 000882517.1
NTDB id 241 SP RS04015 WP 000882523.1
NTDB id 70159 HAS68 RS03505 WP 009909464.1
NTDB id 378 SMU RS02690 WP 002263569.1
NTDB id 85 BSU 00860 NP 387967.1
NTDB id 610 V4T04 RS10165 WP 012897346.1
NTDB id 287 SP RS11210 WP 001109712.1
NTDB id 290 KZH43 RS10025 WP 001109677.1
NTDB id 289 SPD RS10700 WP 001109677.1
NTDB id 377 SMU RS09275 WP 002262344.1
NTDB id 297 STER RS00545 WP 011680614.1
NTDB id 329 STU RS10020 WP 011225298.1
consensus

```



728
735
735
735
735
733
736
801
810
805
805
805
808
811
811

logo

NTDB id 601 KW2 RS02615 WP 021036805.1	VISNQTQETAETTDDEEVP	748
NTDB id 281 KZH43 RS03550 WP 000882517.1	QIKSAKKA	752
NTDB id 245 SPD RS03860 WP 000882517.1	QIKSAKKA	752
NTDB id 243 SPR RS03635 WP 000882517.1	QIKSAKKA	752
NTDB id 241 SP RS04015 WP 000882523.1	QIKSAKKA	752
NTDB id 70159 HAS68 RS03505 WP 009909464.1	QIKAQTKTK	742
NTDB id 378 SMU RS02690 WP 002263569.1	VIKASNKVETVTKATSD	753
NTDB id 85 BSU 00860 NP 387967.1	VVKTTAKTN	810
NTDB id 610 V4T04 RS10165 WP 012897346.1	KIAQIV	816
NTDB id 287 SP RS11210 WP 001109712.1	KFDIA	810
NTDB id 290 KZH43 RS10025 WP 001109677.1	KFDIA	810
NTDB id 289 SPD RS10700 WP 001109677.1	KFDIA	810
NTDB id 377 SMU RS09275 WP 002262344.1	KFDIV	813
NTDB id 297 STER RS00545 WP 011680614.1	TFTVV	816
NTDB id 329 STU RS10020 WP 011225298.1	TFTVV	816
consensus	*	

- non conserved
- similar
- ≥ 50% conserved