



logo



NTDB id 600 KW2 RS01765 WP 011675413.1	I V E I Y G P E S S G K T T V A L H A V A A V Q K E G G I A A F I D A E H A L D P E Y A K A L G V N I D E L L S Q P D Y G E Q G L Q I A E K L I T S G A V D L	154
NTDB id 269 KZH43 RS08665 WP 001085462.1	I I E I Y G P E S S G K T T V A L H A V A Q A Q K E G G I A A F I D A E H A L D P A Y A A A L G V N I D E L L S Q P D S G E Q G L E I A G K L I D S G A V D L	153
NTDB id 228 SPD RS09265 WP 001085462.1	I I E I Y G P E S S G K T T V A L H A V A Q A Q K E G G I A A F I D A E H A L D P A Y A A A L G V N I D E L L S Q P D S G E Q G L E I A G K L I D S G A V D L	153
NTDB id 194 SPR RS08825 WP 001085462.1	I I E I Y G P E S S G K T T V A L H A V A Q A Q K E G G I A A F I D A E H A L D P A Y A A A L G V N I D E L L S Q P D S G E Q G L E I A G K L I D S G A V D L	153
NTDB id 159 SP RS09750 WP 001085462.1	I I E I Y G P E S S G K T T V A L H A V A Q A Q K E G G I A A F I D A E H A L D P A Y A A A L G V N I D E L L S Q P D S G E Q G L E I A G K L I D S G A V D L	153
NTDB id 527 SMSK321 RS11065 WP 001085454.1	I I E I Y G P E S S G K T T V A L H A V A Q A Q K E G G I A A F I D A E H A L D P A Y A A A L G V N I D E L L S Q P D S G E Q G L E I A G K L I D S G A V D L	153
NTDB id 499 SM12261 RS08315 WP 078228268.1	I I E I Y G P E S S G K T T V A L H A V A Q A Q K E G G I A A F I D A E H A L D P A Y A A A L G V N I D E L L S Q P D S G E Q G L E I A G K L I D S G A V D L	153
NTDB id 408 SMU RS09530 WP 002262392.1	I V E I Y G P E S S G K T T V A L H A V A Q A Q K D G G I A A F I D A E H A L D P A Y A A A L G V N I D E L L S Q P D S G E Q G L E I A G K L I D S G A V D L	153
NTDB id 453 Spy49 1753c ACI62003.1	I I E I Y G P E S S G K T T V A L H A V A Q A Q K E G G I A A F I D A E H A L D P A Y A A A L G V N I D E L L A Q P D S G E Q G L E I A G K L I D S G A V D L	153
NTDB id 115 BSU 16940 NP 389576.2	I I E V Y G P E S S G K T T V A L H A I A E V Q Q Q G G Q A A F I D A E H A L D P V Y A Q K L G V N I E L L S Q P D T G E Q A L E I A E A L V R S G A V D I	138
NTDB id 625 LCA RS02525 WP 011374196.1	I V E I Y G P E S S G K T T V A L H A V A E V Q K Q G G T A A Y I D A E H A L D P K Y A T A L G V N I D D L L S Q P D T G E Q G L E I A D A L V S S G A V D I	140
NTDB id 1313 DR RS12030 WP 010888966.1	I T E I Y G P E S G K T T L A L A I V A Q A Q K A G C T C A F I D A E H A L D P V Y A R A L G V N T D E L L V S Q P D N G E Q A L E I M E L L V R S G A I D V	152
NTDB id 1245 Cj1673c YP 002345041.1	I I E I Y G P E S S G K T T L T L H I I A E C Q K A G G V C A F I D A E H A L D V K Y A K N L G V N T D D L Y V S Q P D F G E Q A L E I V E T I A R S G A V D L	139
NTDB id 1214 NCTC11637 00359 SQJ03206.1	I I E I Y G P E S S G K T T L S L H I I A E C Q K N G G V C A F I D A E H A L D V H Y A K R L G V D T E N L L V S Q P D T G E Q A L E I L E T I T R S G I D L	141
NTDB id 1211 C694 RS00795 WP 000963128.1	I I E I Y G P E S S G K T T L S L H I I A E C Q K N G G V C A F I D A E H A L D V H Y A K R L G V D T E N L L V S Q P D T G E Q A L E I L E T I T R S G I D L	141
NTDB id 1334 RAOC RS04870 WP 004918236.1	I V E I Y G P E S S G K T T L T L H A I A E A Q K V G G T A A F I D A E H A F D M H Y A E K L G I N L E E L I V S Q P D N G E Q A L E I A D S L I R S G A V D I	148
NTDB id 1130 NGFG RS03960 WP 003688695.1	I V E I F G P E S S G K T T L C L E A V A Q C Q K N G G V C A F V D A E H A F D P V Y A R K L G V K V E E L Y L S Q P D T G E Q A L E I C D T L V R S G G I D M	140
NTDB id 1124 NGFG RS03960 WP 003688695.1	I V E I F G P E S S G K T T L C L E A V A Q C Q K N G G V C A F V D A E H A F D P V Y A R K L G V K V E E L Y L S Q P D T G E Q A L E I C D T L V R S G G I D M	140
NTDB id 1123 OK783 RS03845 WP 003688695.1	I V E I F G P E S S G K T T L C L E A V A Q C Q K N G G V C A F V D A E H A F D P V Y A R K L G V K V E E L Y L S Q P D T G E Q A L E I C D T L V R S G G I D M	140
NTDB id 999938 ABFU06 RS12190 WP 011036899.1	V V E I Y G P E S S G K T T L T L Q A T A E C Q K L G C T A A F I D A E H A L D P I Y A A K L G V N V D D L L S Q P D T G E Q A L E I A D M L V R S S S V D I	139
NTDB id 1427 RS RS02760 WP 011000510.1	V V E I Y G P E S S G K T T L T L Q V V A E M Q K L G G T C A F I D A E H A L D V T Y A D K L G V K V P D L L S Q P D T G E Q A L E I A D A L V R S G S V D L	148
NTDB id 1389 A4U84 RS07560 WP 021112712.1	I V E I Y G P E S S G K T T L T L S L I A Q A Q K G N K T C A F I D A E H A L D P V Y A R N L G V N T D E L L S Q P D N G E Q A L E I C D A L V R S G A V D V	156
NTDB id 1165 A1552VC RS01565 WP 000344154.1	I V E I F G P E S S G K T T L T L E L I A A A Q R E G K T C A F I D A E H A L D P V Y A K K L G V N I D E L L V S Q P D T G E Q A L E I C D A L A R S G A V D V	139
NTDB id 1142 GTF74 RS11550 WP 000344154.1	I V E I F G P E S S G K T T L T L E L I A A A Q R E G K T C A F I D A E H A L D P V Y A K K L G V N I D E L L V S Q P D T G E Q A L E I C D A L A R S G A V D V	139
NTDB id 1022 ACIAD RS06390 WP 004925639.1	I V E I Y G P E S S G K T T M T L Q A I A Q C Q K A G G T C A F I D A E H A L D P Q Y A R K L G V D I D N L L V S Q P D H G E Q A L E I A D M L V R S G A I D L	139
NTDB id 1074 ABD1 RS10195 WP 000344167.1	I I E I Y G P E S S G K T T M T L Q A I A Q C Q K S G G T C A F I D A E H A L D P Q Y A R K L G V D I D N L L V S Q P D N G E Q A L E I A D M L V R S G A I D L	139
NTDB id 1205 PSJM300 05545 AFN77183.1	I V E I Y G P E S S G K T T L T L S V I A A A Q R M G S T C A F V D A E H A L D P D Y A G K L G V N V D D L L V S Q P D T G E Q A L E I T D M L V R S N A V D V	139
consensus	**!* **!!!!*!!!!*! **!* !* ** !**!!!!*!* *! !! !** **!* **!* !!!* !!!*! * **!* **!* *	





logo



NTDB id 600 KW2 RS01765 WP 011675413.1	NDEKIGQGA	EKAKNYL	KEHQDV	FDEID	HKVRAAH	GLDD	SEVAETEEETT	ASKTKAKAKKEEK	AVETEEIELELED...	387	
NTDB id 269 KZH43 RS08665 WP 001085462.1	KDEKIGQGS	ENAKKYL	LAEHPEI	FDEID	KQVRSKF	GLDGE	EVSEQD	TENKKDE...	PKKEEA..VNEEVPLDLGDELEI	384	
NTDB id 228 SPD RS09265 WP 001085462.1	KDEKIGQGS	ENAKKYL	LAEHPEI	FDEID	KQVRSKF	GLDGE	EVSEQD	TENKKDE...	PKKEEA..VNEEVPLDLGDELEI	384	
NTDB id 194 SPR RS08825 WP 001085462.1	KDEKIGQGS	ENAKKYL	LAEHPEI	FDEID	KQVRSKF	GLDGE	EVSEQD	TENKKDE...	PKKEEA..VNEEVPLDLGDELEI	384	
NTDB id 159 SP RS09750 WP 001085462.1	KDEKIGQGS	ENAKKYL	LAEHPEI	FDEID	KQVRSKF	GLDGE	EVSEQD	TENKKDE...	PKKEEA..VNEEVPLDLGDELEI	384	
NTDB id 527 SMSK321 RS11065 WP 001085454.1	KDEKIGQGS	ENAKKYL	ADNPEI	VFAEID	HQVRVQF	GLDGE	EAAE...	SKKDE...	VAQVDS..VNEEVTLDLGDLEI	380	
NTDB id 499 SM12261 RS08315 WP 078228268.1	KDEKIGQGS	ENAKKYL	ADNPEI	FDEID	HQVRVQF	GLDGE	EIAE...	SKKDE...	AAQVDS..VNEEVTLDLGDLEI	380	
NTDB id 408 SMU RS09530 WP 002262392.1	NGEKIGQGS	ENAKKFL	ADNPEI	FDDID	HKVRVQY	GLIEE	DNTEEK	QSSKEK.....	ETDEK..ADKNLVLELDDTIEL	381	
NTDB id 453 Spy49 1753c ACI62003.1	NGEKIGQGS	ENAKRYL	ADHPQI	FDEID	RKVRVKF	GLLEE	SEESAM	AVASE.....	E.....TDDLALDLDN	376	
NTDB id 115 BSU 16940 NP 389576.2	EEERL	GGREN	AKQFL	KENKDI	MLMI	QEQI	REHYC	LDN	NGVVQQAEETQEEL.EFE.E.....	348	
NTDB id 625 LCA RS02525 WP 011374196.1	GSEIR	GGREN	AKNYL	ADHED	VEDEV	RLKVR	AAAYG	ISD	VPEEDLP	TTETE.QI.NILPDDST.....EE.....	355
NTDB id 1313 DR RS12030 WP 010888966.1	GDER	IGQCKE	KTIAYI	AERP	MEQE	IRDRV	MAAIR	RAGN	AGEAPALAPAPAAPEAAEA.....	363	
NTDB id 1245 Cj1673c YP 002345041.1	KDKK	IGGREN	SKAFL	KENPEI	ADEIT	KATQ	NSMG	IEG	MI.....SG	SEDDEGEE.....	343
NTDB id 1214 NCTC11637 00359 SQJ03206.1	QDKK	IGGREN	AKALL	KEDK	ALADEI	TLKIK	ESIG	SNEEI	.....MPLP	DEPLEEME.....	347
NTDB id 1211 C694 RS00795 WP 000963128.1	QDKK	IGGREN	AKALL	KEDK	ALADEI	TLKIK	ESIG	SNEEI	.....MPLP	DEPLEEME.....	347
NTDB id 1334 RAOC RS04870 WP 004918236.1	QDTK	IGGRD	TVKEL	LKDN	PEIAE	LEAKI	REKL	QAK.....	.....	343	
NTDB id 1130 NGFG RS03960 WP 003688695.1	NGAK	IGQCKD	NVRVW	LKENPEI	SDEID	AKIR	ALN	GVEM	HI.....TEGT	QDET	348
NTDB id 1124 NGFG RS03960 WP 003688695.1	NGAK	IGQCKD	NVRVW	LKENPEI	SDEID	AKIR	ALN	GVEM	HI.....TEGT	QDET	348
NTDB id 1123 OK783 RS03845 WP 003688695.1	NGAK	IGQCKD	NVRVW	LKENPEI	SDEID	AKIR	ALN	GVEM	HI.....TEGT	QDET	348
NTDB id 999938 ABFU06 RS12190 WP 011036899.1	GDER	IGQCKD	NARGYL	RDN	PQVA	IKLE	AEI	REK	FQPAEAP.....	REAGETESE.....	343
NTDB id 1427 RS RS02760 WP 011000510.1	NGER	IGGRD	NCRE	FLREN	AELARE	IENK	VREHL	GV	TPMG.....AV	TLAE	352
NTDB id 1389 A4U84 RS07560 WP 021112712.1	DGTK	IGQCKN	NAV	KLKENPEI	ADKLE	QEIR	N	TLAS	NPNS.....VL	KATAS	372
NTDB id 1165 A1552VC RS01565 WP 000344154.1	NGDK	IGQCKA	NACKYL	LKENPEI	AKTLD	KKL	REML	LN	PENM.....QL	IAET	354
NTDB id 1142 GTF74 RS11550 WP 000344154.1	NGDK	IGQCKA	NACKYL	LKENPEI	AKTLD	KKL	REML	LN	PENM.....QL	IAET	354
NTDB id 1022 ACIAD RS06390 WP 004925639.1	QGNK	IGQCKN	NVIRY	LEEN	QISTE	IEAV	IRE	QL	LTKASD.....QTAA	.HDE	349
NTDB id 1074 ABD1 RS10195 WP 000344167.1	QGNK	IGQCKN	NVIRY	FEEN	QIAE	IEIR	IRE	QL	LLTTGTN.....GAVQ	.I.EDEE	349
NTDB id 1205 PSJM300 05545 AFN77183.1	KGSK	IGQCKA	NAAKYL	LEENPEI	GQEIE	QQI	RAKLL	V	TSAN.....TK	ATPVA	347
consensus	***!!!	*****	*	*****	*****	*	*	*			

logo

	E	L	E	E	
NTDB id 600 KW2 RS01765 WP 011675413.1	.	.	.	.	387
NTDB id 269 KZH43 RS08665 WP 001085462.1	E	I	E	E	388
NTDB id 228 SPD RS09265 WP 001085462.1	E	I	E	E	388
NTDB id 194 SPR RS08825 WP 001085462.1	E	I	E	E	388
NTDB id 159 SP RS09750 WP 001085462.1	E	I	E	E	388
NTDB id 527 SMSK321 RS11065 WP 001085454.1	E	I	E	E	384
NTDB id 499 SM12261 RS08315 WP 078228268.1	E	I	E	E	384
NTDB id 408 SMU RS09530 WP 002262392.1	E	D	.	.	383
NTDB id 453 Spy49 1753c ACI62003.1	E	D	.	.	378
NTDB id 115 BSU 16940 NP 389576.2	.	.	.	.	348
NTDB id 625 LCA RS02525 WP 011374196.1	.	.	.	.	355
NTDB id 1313 DR RS12030 WP 010888966.1	.	.	.	.	363
NTDB id 1245 Cj1673c YP 002345041.1	.	.	.	.	343
NTDB id 1214 NCTC11637 00359 SQJ03206.1	.	.	.	.	347
NTDB id 1211 C694 RS00795 WP 000963128.1	.	.	.	.	347
NTDB id 1334 RAOC RS04870 WP 004918236.1	.	.	.	.	343
NTDB id 1130 NGFG RS03960 WP 003688695.1	.	.	.	.	348
NTDB id 1124 NGFG RS03960 WP 003688695.1	.	.	.	.	348
NTDB id 1123 OK783 RS03845 WP 003688695.1	.	.	.	.	348
NTDB id 999938 ABFU06 RS12190 WP 011036899.1	.	.	.	.	343
NTDB id 1427 RS RS02760 WP 011000510.1	.	.	.	.	352
NTDB id 1389 A4U84 RS07560 WP 021112712.1	.	.	.	.	372
NTDB id 1165 A1552VC RS01565 WP 000344154.1	.	.	.	.	354
NTDB id 1142 GTF74 RS11550 WP 000344154.1	.	.	.	.	354
NTDB id 1022 ACIAD RS06390 WP 004925639.1	.	.	.	.	349
NTDB id 1074 ABD1 RS10195 WP 000344167.1	.	.	.	.	349
NTDB id 1205 PSJM300 05545 AFN77183.1	.	.	.	.	347

consensus

- non conserved
- similar
- $\geq 50\%$  conserved