

logo



NTDB id 600 KW2 RS01765 WP 011675413.1	MATKKK.....TNFDDITKKYGA	ERDKALADALALIEKD	FGKGSIMRLGEA	.ANQKVS	VSSGSLALDI	I	ALGAGGYPKGR	74			
NTDB id 269 KZH43 RS08665 WP 001085462.1	.MAKKP.....KKLEEISKKFGA	EREKALNDALKLI	IEKDFGKGSIMRLGER	.AEQKVQVMSSGSLALDI	I	ALGSGGYPKGR	73				
NTDB id 228 SPD RS09265 WP 001085462.1	.MAKKP.....KKLEEISKKFGA	EREKALNDALKLI	IEKDFGKGSIMRLGER	.AEQKVQVMSSGSLALDI	I	ALGSGGYPKGR	73				
NTDB id 194 SPR RS08825 WP 001085462.1	.MAKKP.....KKLEEISKKFGA	EREKALNDALKLI	IEKDFGKGSIMRLGER	.AEQKVQVMSSGSLALDI	I	ALGSGGYPKGR	73				
NTDB id 159 SP RS09750 WP 001085462.1	.MAKKP.....KKLEEISKKFGA	EREKALNDALKLI	IEKDFGKGSIMRLGER	.AEQKVQVMSSGSLALDI	I	ALGSGGYPKGR	73				
NTDB id 527 SMSK321 RS11065 WP 001085454.1	.MAKKP.....KKLDEISKKFGA	EREKALNDALKLI	IEKDFGKGSIMRLGER	.AEQKVQVMSSGSLALDI	I	ALGSGGYPKGR	73				
NTDB id 499 SM12261 RS08315 WP 0028228268.1	.MAKKP.....KKLDEISKKFGA	EREKALNDALKLI	IEKDFGKGSIMRLGER	.AEQKVQVMSSGSLALDI	I	ALGSGGYPKGR	73				
NTDB id 408 SMU RS09530 WP 002262392.1	.MAKRI.....KKTEEITKKFQ	DERKKALDDALKN	IEKDFGKGAVMRLGER	.AEQKVQVMSSGSLALDI	I	ALGAGGYPKGR	73				
NTDB id 453 Spy49 1753c ACI62003.1	.MAKKL.....KKNEEITKKFG	DERRKALDDALKN	IEKDFGKGAVMRLGER	.AEQKVQVMSSGSLALDI	I	ALGAGGYPKGR	73				
NTDB id 115 BSU 16940 NP 389576.2	.....MSDRQAALDMALKQ	IEKQFGKGSIMKLG	EK.TDTR	ISTVPSGSLALDI	I	ALGIGGYPKGR	58			
NTDB id 625 LCA RS02525 WP 011374196.1	.....MAKDERQAALDAALKK	IEKNFGKGSIMRMGEK	.VDTQVSTVSSGSLALDE	ALGVGGYPKGR	60					
NTDB id 1313 DR RS12030 WP 010888966.1	.....MSKDATKEISAPTD	AKERSKATETAM	QIEKAFGKGSIMKLGAE	.SKLDVQVSTGSLSLDL	I	ALGVGGIPKGR	72			
NTDB id 1245 Cj1673c YP 002345041.1	.....MDNKRKSLDAALKS	LDKTFGKGTILRLGDK	.EVEQIDSIGTGSVGLDL	I	ALGIGGVPKGR	59				
NTDB id 1214 NCTC11637 00359 SQJ03206.1MAIDEDKQKATISLA	IKQIDKVF	FGKGA	LVR	LDK.QVEKIDA	ISTGSLGLDL	I	ALGIGGVPKGR	61		
NTDB id 1211 C694 RS00795 WP 000963128.1MAIDEDKQKATISLA	IKQIDKVF	FGKGA	LVR	LDK.QVEKIDS	ISTGSLGLDL	I	ALGIGGVPKGR	61		
NTDB id 1334 RAOC RS04870 WP 004918236.1MAKT..ETTS	PNDDKKKALAAVLEK	LDKTYGKGTVMKLG	GD	TV	DHNI	IEV	IPSGSLGLDL	I	ALGVGGYPKGR	68
NTDB id 1130 NGFG RS03960 WP 003688695.1MSDDKSKALAAAL	QIEKSF	GKGA	IMKMDGSQ	Q	EENLE	VI	ISTGSLGLDL	I	ALGVGGLPKGR	60
NTDB id 1124 NGFG RS03960 WP 003688695.1MSDDKSKALAAAL	QIEKSF	GKGA	IMKMDGSQ	Q	EENLE	VI	ISTGSLGLDL	I	ALGVGGLPKGR	60
NTDB id 1123 OK783 RS03845 WP 003688695.1MSDDKSKALAAAL	QIEKSF	GKGA	IMKMDGSQ	Q	EENLE	VI	ISTGSLGLDL	I	ALGVGGLPKGR	60
NTDB id 410897 DVT08 RS00445 WP 012337558.1MDENKKRALSV	ALSQIEKQ	FGKGSVMRMGDR	.VIEAVEA	IP	TGSLMLDL	I	ALGIGGLPKGR	59		
NTDB id 1427 RS RS02760 WP 011000510.1MEDGK..KAAS	MSAEKQKALAAAL	QIEKQFGKGSIMKMGDA	.EVEPVQV	V	STGSLGLD	I	ALGVGGLPKGR	68		
NTDB id 1389 A4U84 RS07560 WP 021112712.1	.MAENKKS	SKNNTV.VKQVEP	EKQKQALEAAL	QIEKQFGKGSIMKLGQT	.EQLD	IESV	STGSLGLDL	I	ALGIGGLPKGR	76	
NTDB id 1165 A1552VC RS01565 WP 000344154.1	.....MDENKQKALAAAL	QIEKQFGKGSIMRLGDN	.RAMDVET	ISTGSLSLDI	I	ALGAGGLPKGR	59			
NTDB id 1142 GTF74 RS11550 WP 000344154.1	.....MDENKQKALAAAL	QIEKQFGKGSIMRLGDN	.RAMDVET	ISTGSLSLDI	I	ALGAGGLPKGR	59			
NTDB id 1022 ACIAD RS06390 WP 004925639.1MDDNKSKALQAALS	QIEKQFGKNTVMRLGDN	.TVQAVEA	V	STGSLTLDI	I	ALGIGGLPKGR	59			
NTDB id 1074 ABD1 RS10195 WP 000344167.1MDENKSKALQAALS	QIEKQFGKNTVMRLGDN	.TVQAVEA	V	STGSLTLDI	I	ALGIGGLPKGR	59			
NTDB id 1205 PSJM300 05545 AFN77183.1MDENKKRALAAAL	QIEKQFGKGAVMRMGDH	.DRQA	IPS	ISTGSLGLDI	I	ALGIGGLPKGR	59			
consensus		*** **	***	**	***!	*****	*	***!!*!!*!!*!!*!!*!!*!!*!!			

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NTDB id 600 KW2 RS01765 WP 011675413.1	VV	I	D	S	V	A	A	L	V	P	K	A	E	I	E	G	D	M	G	D	S	H	V	G	L	Q	A	R	L	M	S	Q	A	L	R	K	L	T	G	I	N	K	T	K	T	T	A	I	F	I	N	Q	L	R	E	K	V	G	V	M	F	G	.	.	S	P	E	T	T	P	G	G	R	A	L	K	F	Y	232		
NTDB id 269 KZH43 RS08665 WP 001085462.1	V	V	V	D	S	V	A	A	L	V	P	R	A	E	I	D	G	I	G	D	S	H	V	G	L	Q	A	R	M	S	Q	A	M	R	K	L	G	A	S	I	N	K	T	K	T	I	A	I	F	I	N	Q	L	R	E	K	V	G	V	M	F	G	.	.	N	P	E	T	T	P	G	G	R	A	L	K	F	Y	231		
NTDB id 228 SPD RS09265 WP 001085462.1	V	V	V	D	S	V	A	A	L	V	P	R	A	E	I	D	G	I	G	D	S	H	V	G	L	Q	A	R	M	S	Q	A	M	R	K	L	G	A	S	I	N	K	T	K	T	I	A	I	F	I	N	Q	L	R	E	K	V	G	V	M	F	G	.	.	N	P	E	T	T	P	G	G	R	A	L	K	F	Y	231		
NTDB id 194 SPR RS08825 WP 001085462.1	V	V	V	D	S	V	A	A	L	V	P	R	A	E	I	D	G	I	G	D	S	H	V	G	L	Q	A	R	M	S	Q	A	M	R	K	L	G	A	S	I	N	K	T	K	T	I	A	I	F	I	N	Q	L	R	E	K	V	G	V	M	F	G	.	.	N	P	E	T	T	P	G	G	R	A	L	K	F	Y	231		
NTDB id 159 SP RS09750 WP 001085462.1	V	V	V	D	S	V	A	A	L	V	P	R	A	E	I	D	G	I	G	D	S	H	V	G	L	Q	A	R	M	S	Q	A	M	R	K	L	G	A	S	I	N	K	T	K	T	I	A	I	F	I	N	Q	L	R	E	K	V	G	V	M	F	G	.	.	N	P	E	T	T	P	G	G	R	A	L	K	F	Y	231		
NTDB id 527 SMSK321 RS11065 WP 001085454.1	V	V	V	D	S	V	A	A	L	V	P	R	A	E	I	D	G	I	G	D	S	H	V	G	L	Q	A	R	M	S	Q	A	M	R	K	L	G	A	S	I	N	K	T	K	T	I	A	I	F	I	N	Q	L	R	E	K	V	G	V	M	F	G	.	.	N	P	E	T	T	P	G	G	R	A	L	K	F	Y	231		
NTDB id 499 SM12261 RS08315 WP 0028228268.1	V	V	V	D	S	V	A	A	L	V	P	R	A	E	I	D	G	I	G	D	S	H	V	G	L	Q	A	R	M	S	Q	A	M	R	K	L	G	A	S	I	N	K	T	K	T	I	A	I	F	I	N	Q	L	R	E	K	V	G	V	M	F	G	.	.	N	P	E	T	T	P	G	G	R	A	L	K	F	Y	231		
NTDB id 408 SMU RS09530 WP 002262392.1	V	V	V	D	S	V	A	A	L	V	P	R	A	E	I	D	G	I	G	D	S	H	V	G	L	Q	A	R	M	S	Q	A	M	R	K	L	S	A	S	I	N	K	T	K	T	I	A	I	F	I	N	Q	L	R	E	K	V	G	I	M	F	G	.	.	N	P	E	T	T	P	G	G	R	A	L	K	F	Y	231		
NTDB id 453 Spy49 1753c ACI62003.1	V	V	V	D	S	V	A	A	L	V	P	R	A	E	I	D	G	I	G	D	S	H	V	G	L	Q	A	R	L	M	S	Q	A	M	R	K	L	S	A	S	I	N	K	T	K	T	I	A	I	F	I	N	Q	L	R	E	K	V	G	V	M	F	G	.	.	N	P	E	T	T	P	G	G	R	A	L	K	F	Y	231	
NTDB id 115 BSU 16940 NP 389576.2	V	V	V	D	S	V	A	A	L	V	P	K	A	E	I	E	G	D	M	G	D	S	H	V	G	L	Q	A	R	L	M	S	Q	A	L	R	K	L	S	G	A	I	N	K	S	K	T	I	A	I	F	I	N	Q	L	R	E	K	V	G	V	M	F	G	.	.	N	P	E	T	T	P	G	G	R	A	L	K	F	Y	216
NTDB id 625 LCA RS02525 WP 011374196.1	L	V	V	D	S	V	A	A	L	V	P	R	A	E	I	E	G	E	M	G	D	A	H	V	G	L	Q	A	R	L	M	S	Q	A	L	R	K	L	S	G	T	I	N	K	T	K	T	I	A	L	F	I	N	Q	L	R	E	K	V	G	V	M	F	G	.	.	N	P	E	V	T	P	G	G	R	A	L	K	F	Y	218
NTDB id 1313 DR RS12030 WP 010888966.1	V	V	V	D	S	V	A	A	L	T	P	R	A	E	I	E	G	D	M	G	D	S	L	P	L	Q	A	R	L	M	S	Q	A	L	R	K	L	T	A	I	L	S	K	T	G	T	A	A	I	F	I	N	Q	V	R	E	K	I	G	V	M	Y	G	.	.	N	P	E	T	T	T	G	G	R	A	L	K	F	Y	230	
NTDB id 1245 Cj1673c YP 002345041.1	I	V	V	D	S	V	A	A	L	T	P	K	A	E	I	E	G	D	M	G	D	Q	H	V	G	L	Q	A	R	L	M	S	Q	A	L	R	K	L	T	G	I	V	H	K	M	N	T	T	V	I	F	I	N	Q	I	R	M	K	I	G	A	M	G	.	Y	G	T	P	E	T	T	T	G	G	N	A	L	K	F	Y	218
NTDB id 1214 NCTC11637 00359 SQJ03206.1	V	V	V	D	S	V	A	A	L	T	P	K	A	E	I	D	G	M	G	D	Q	H	V	G	L	Q	A	R	L	M	S	H	A	L	R	K	I	T	G	V	L	H	K	M	N	T	T	L	I	F	I	N	Q	I	R	M	K	I	G	M	M	G	.	Y	G	S	P	E	T	T	T	G	G	N	A	L	K	F	Y	220	
NTDB id 1211 C694 RS00795 WP 000963128.1	V	V	V	D	S	V	A	A	L	T	P	K	A	E	I	D	G	M	G	D	Q	H	V	G	L	Q	A	R	L	M	S	H	A	L	R	K	I	T	G	V	L	H	K	M	N	T	T	L	I	F	I	N	Q	I	R	M	K	I	G	M	M	G	.	Y	G	S	P	E	T	T	T	G	G	N	A	L	K	F	Y	220	
NTDB id 1334 RAOC RS04870 WP 004918236.1	V	V	V	D	S	V	A	A	L	T	P	K	A	E	I	D	G	M	G	D	S	K	M	G	L	H	A	R	L	M	S	Q	A	L	R	K	L	T	S	S	I	S	K	T	K	T	V	I	F	I	N	Q	L	R	D	K	I	G	V	M	F	G	.	.	S	P	E	T	T	T	G	G	N	A	L	K	F	Y	226		
NTDB id 1130 NGFG RS03960 WP 003688695.1	V	V	V	D	S	V	A	A	L	V	P	K	A	E	I	E	G	D	M	G	D	S	H	V	G	L	Q	A	R	L	M	S	Q	A	L	R	K	L	T	G	H	I	K	T	N	T	L	V	V	F	I	N	Q	I	R	M	K	I	G	V	M	F	G	.	.	S	P	E	T	T	T	G	G	N	A	L	K	F	Y	218	
NTDB id 1124 NGFG RS03960 WP 003688695.1	V	V	V	D	S	V	A	A	L	V	P	K	A	E	I	E	G	D	M	G	D	S	H	V	G	L	Q	A	R	L	M	S	Q	A	L	R	K	L	T	G	H	I	K	T	N	T	L	V	V	F	I	N	Q	I	R	M	K	I	G	V	M	F	G	.	.	S	P	E	T	T	T	G	G	N	A	L	K	F	Y	218	
NTDB id 1123 OK783 RS03845 WP 003688695.1	V	V	V	D	S	V	A	A	L	V	P	K	A	E	I	E	G	D	M	G	D	S	H	V	G	L	Q	A	R	L	M	S	Q	A	L	R	K	L	T	G	H	I	K	T	N	T	L	V	V	F	I	N	Q	I	R	M	K	I	G	V	M	F	G	.	.	S	P	E	T	T	T	G	G	N	A	L	K	F	Y	218	
NTDB id 410897 DVT08 RS00445 WP 012337558.1	M	V	I	D	S	V	A	A	L	T	P	K	A	E	I	E	G	E	M	G	D	Q	L	P	L	Q	A	R	L	M	S	Q	A	L	R	K	L	T	G	N	I	K	R	S	N	T	L	V	I	F	I	N	Q	L	R	M	K	I	G	I	M	P	G	S	P	E	T	T	T	G	G	N	A	L	K	F	Y	219			
NTDB id 1427 RS RS02760 WP 011000510.1	I	V	I	D	S	V	A	A	L	V	P	K	A	E	I	E	G	E	M	G	D	A	L	P	L	Q	A	R	L	M	S	Q	A	L	R	K	L	T	G	T	I	K	R	T	N	C	L	V	I	F	I	N	Q	I	R	M	K	I	G	V	M	F	G	.	.	S	P	E	T	T	T	G	G	N	A	L	K	F	Y	226	
NTDB id 1389 A4U84 RS07560 WP 021112712.1	I	I	V	D	S	V	A	A	L	T	P	K	A	E	I	E	G	D	M	G	D	S	H	M	G	L	Q	A	R	L	M	S	Q	A	L	R	K	L	T	A	N	I	K	N	T	N	C	L	V	V	F	I	N	Q	I	R	M	K	I	G	V	M	F	G	.	.	N	P	E	T	T	T	G	G	N	A	L	K	F	Y	234
NTDB id 1165 A1552VC RS01565 WP 000344154.1	I	V	V	D	S	V	A	A	L	T	P	K	A	E	I	E	G	E	M	G	D	S	H	M	G	L	Q	A	R	M	L	S	Q	A	M	R	K	L	T	G	N	L	K	Q	S	N	C	M	C	I	F	I	N	Q	I	R	M	K	I	G	V	M	F	G	.	.	N	P	E	T	T	T	G	G	N	A	L	K	F	Y	217
NTDB id 1142 GTF74 RS11550 WP 000344154.1	I	V	V	D	S	V	A	A	L	T	P	K	A	E	I	E	G	E	M	G	D	S	H	M	G	L	Q	A	R	M	L	S	Q	A	M	R	K	L	T	G	N	L	K	Q	S	N	C	M	C	I	F	I	N	Q	I	R	M	K	I	G	V	M	F	G	.	.	N	P	E	T	T	T	G	G	N	A	L	K	F	Y	217
NTDB id 1022 ACIAD RS06390 WP 004925639.1	I	V	V	D	S	V	A	A	L	T	P	K	A	E	I	E	G	E	M	G	D	S	H	M	G	L	Q	A	R	L	M	S	Q	A	L	R	K	I	T	G	N	A	K	R	S	N	C	M	V	I	F	I	N	Q	I	R	M	K	I	G	V	M	F	G	.	.	S	P	E	T	T	T	G	G	N	A	L	K	F	Y	217
NTDB id 1074 ABD1 RS10195 WP 000344167.1	I	V	V	D	S	V	A	A	L	T	P	K	A	E	I	E	G	E	M	G	D	S	H	M	G	L	Q	A	R	L	M	S	Q	A	L	R	K	I	T	G	N	A	K	R	S	N	C	M	V	I	F	I	N	Q	I	R	M	K	I	G	V	M	F	G	.	.	S	P	E	T	T	T	G	G	N	A	L	K	F	Y	217
NTDB id 1205 PSJM300 05545 AFN77183.1	I	I	V	D	S	V	A	A	L	V	P	K	A	E	I	E	G	E	M	G	D	A	H	V	G	L	Q	A	R	L	M	S	Q	A																																															

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NTDB id 600 KW2 RS01765 WP 011675413.1	387
NTDB id 269 KZH43 RS08665 WP 001085462.1	EIEE	388
NTDB id 228 SPD RS09265 WP 001085462.1	EIEE	388
NTDB id 194 SPR RS08825 WP 001085462.1	EIEE	388
NTDB id 159 SP RS09750 WP 001085462.1	EIEE	388
NTDB id 527 SMSK321 RS11065 WP 001085454.1	EIEE	384
NTDB id 499 SM12261 RS08315 WP 078228268.1	EIEE	384
NTDB id 408 SMU RS09530 WP 002262392.1	ED..	383
NTDB id 453 Spy49 1753c ACI62003.1	ED..	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 410897 DVT08 RS00445 WP 012337558.1	....	347
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
 ≥ 50% conserved