

logo



NTDB id 600 KW2 RS01765 WP 011675413.1	MATK.....KKTNFDDITKKYGA	ERDKALADALALIEKD	FGKGSIMRLGEA	.ANQKVS	VSSGSLALDI	ALGAGGYPKGR	74
NTDB id 269 KZH43 RS08665 WP 001085462.1	.MAK.....KPKKLEEISKKFGA	EREKALNDALKLI	IEKDFGKGSIMRLGER	.AEQKVQVMSSGSLALDI	ALGSGGYPKGR	73	
NTDB id 228 SPD RS09265 WP 001085462.1	.MAK.....KPKKLEEISKKFGA	EREKALNDALKLI	IEKDFGKGSIMRLGER	.AEQKVQVMSSGSLALDI	ALGSGGYPKGR	73	
NTDB id 194 SPR RS08825 WP 001085462.1	.MAK.....KPKKLEEISKKFGA	EREKALNDALKLI	IEKDFGKGSIMRLGER	.AEQKVQVMSSGSLALDI	ALGSGGYPKGR	73	
NTDB id 159 SP RS09750 WP 001085462.1	.MAK.....KPKKLEEISKKFGA	EREKALNDALKLI	IEKDFGKGSIMRLGER	.AEQKVQVMSSGSLALDI	ALGSGGYPKGR	73	
NTDB id 499 SM12261 RS08315 WP 078228268.1	.MAK.....KPKKLDEISKKFGA	EREKALNDALKLI	IEKDFGKGSIMRLGER	.AEQKVQVMSSGSLALDI	ALGSGGYPKGR	73	
NTDB id 527 SMSK321 RS11065 WP 001085454.1	.MAK.....KPKKLDEISKKFGA	EREKALNDALKLI	IEKDFGKGSIMRLGER	.AEQKVQVMSSGSLALDI	ALGSGGYPKGR	73	
NTDB id 453 Spy49 1753c ACI62003.1	.MAK.....KLKKNEEITKKFGD	ERRKALDDALKN	IEKDFGKGAVMRLGER	.AEQKVQVMSSGSLALDI	ALGAGGYPKGR	73	
NTDB id 408 SMU RS09530 WP 002262392.1	.MAK.....RIKKTEEITKKFGD	ERRKALDDALKN	IEKDFGKGAVMRLGER	.AEQKVQVMSSGSLALDI	ALGAGGYPKGR	73	
NTDB id 115 BSU 16940 NP 389576.2	.....MSDRQAALDMALKQ	IEKQFGKGSIMKLG	EK.TDTRISTVPSGSLALDI	TALGIGGYPRGR	58	
NTDB id 625 LCA RS02525 WP 011374196.1	.....MAKDERQAALDAALKK	IEKNFGKGSIMRMGEK	.VDTQVSTVSSGSLALDEAL	GVGGYPRGR	60	
NTDB id 1313 DR RS12030 WP 010888966.1	.....MSKDATKEISAPTD	AKERSKATETAM	QIEKAFGKGSIMKLGAE	.SKLDVQVSTGSLSLDL	ALGVGGIPRGR	72
NTDB id 392835 GXM RS09290 WP 118170154.1	.....MAINTDTS	GKQKALTMVLN	QIERSFGKGAIMRLGDA	.TRMRVETISSGALTL	DLALG.GGLPKGR	63
NTDB id 1245 Cj1673c YP 002345041.1	.....MDDNKRKSLDAALKS	LDKTFGKGTILRLGDK	.EVEQIDSI	GTGSGVGLDLALGIGGV	PKGR	59
NTDB id 1211 C694 RS00795 WP 000963128.1	.....MAIDEDKQKATISLA	IKQIDKVF	FGKGAIVRLGDK.QVEKIDSI	STGSLGLDLALGIGGV	PKGR	61
NTDB id 1214 NCTC11637 00359 SQJ03206.1	.....MAIDEDKQKATISLA	IKQIDKVF	FGKGAIVRLGDK.QVEKIDAI	STGSLGLDLALGIGGV	PKGR	61
NTDB id 1334 RAOC RS04870 WP 004918236.1MAK..TETTSPND	DKKKALAAVLEKLD	KTYGKGTVMKLG	DGTVDHNI	IEVIPS	SGSLGLDLALGVGGYPKGR	68
NTDB id 1389 A4U84 RS07560 WP 021112712.1	.MAENKKS	SKNNT.VVKQVEPEK	KKQALEAAL	QIEKQFGKGSIMKLG	QT.EQLDIESV	STGSLGLDLALGIGGLPMGR	76
NTDB id 1130 NGFG RS03960 WP 003688695.1	.....MSDDKSKALAAAL	QIEKSF	FGKGAIMKMDGSQ	QEEENLEVI	STGSLGLDLALGVGGLPRGR	60
NTDB id 1124 NGFG RS03960 WP 003688695.1	.....MSDDKSKALAAAL	QIEKSF	FGKGAIMKMDGSQ	QEEENLEVI	STGSLGLDLALGVGGLPRGR	60
NTDB id 1123 OK783 RS03845 WP 003688695.1	.....MSDDKSKALAAAL	QIEKSF	FGKGAIMKMDGSQ	QEEENLEVI	STGSLGLDLALGVGGLPRGR	60
NTDB id 1427 RS RS02760 WP 011000510.1	.MEDG.....KKAASMSA	EKQKALAAAL	QIEKQFGKGSIMKMGDA	.EVEPVQV	VSTGSLGLDVALGVGGLPRGR	68	
NTDB id 1165 A1552VC RS01565 WP 000344154.1	.....MDENKQKALAAAL	QIEKQFGKGSIMRLG	DN.RAMDVET	ISTGSLSLDI	ALGAGGLPMGR	59
NTDB id 1142 GTF74 RS11550 WP 000344154.1	.....MDENKQKALAAAL	QIEKQFGKGSIMRLG	DN.RAMDVET	ISTGSLSLDI	ALGAGGLPMGR	59
NTDB id 1022 ACIAD RS06390 WP 004925639.1MDDNKS	KALQAALS	QIEKQFGKNTVMRLG	DN.TVQAVEA	VSTGSLTLDI	ALGIGGLPKGR	59
NTDB id 1074 ABD1 RS10195 WP 000344167.1MDENKS	KALQAALS	QIEKQFGKNTVMRLG	DN.TVQAVEA	VSTGSLTLDI	ALGIGGLPKGR	59
NTDB id 1205 PSJM300 05545 AFN77183.1MDENKKRALAAAL	QIEKQFGKGAVMR	GDH.DRQAIPS	ISTGSLGLDI	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	S	S	V	G	L	Q	A	R	M	S	Q	A	M	R	K	L	A	G	H	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	A	.	233					
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	A	.	232		
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	A	.	232		
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	A	.	232		
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	A	.	232		
NTDB id 499 SM12261 RS08315 WP 078228268.1	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	A	.	232		
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	A	.	232		
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	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	A	.	232		
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	S	.	232		
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	I	R	E	K	V	G	V	M	.	F	G	N	P	E	T	T	P	G	G	R	A	L	K	F	Y	S	.	217
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	I	R	E	K	V	G	V	M	.	F	G	N	P	E	V	T	P	G	G	R	A	L	K	F	Y	S	.	219
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	A	.	231	
NTDB id 392835 GXM RS09290 WP 118170154.1	V	V	I	D	S	V	A	A	L	V	P	R	A	E	I	E	G	D	M	G	D	T	H	V	G	L	Q	A	R	L	M	S	Q	A	L	R	K	I	T	G	N	I	G	K	S	G	C	T	V	I	F	I	N	Q	L	R	Q	K	I	G	V	T	.	Y	G	S	P	E	T	T	T	G	G	N	A	L	K	F	Y	A	.	222
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	Y	G	T	P	E	T	T	T	G	G	N	A	L	K	F	Y	A	.	219	
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	Y	G	S	P	E	T	T	T	G	G	N	A	L	K	F	Y	A	.	221			
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	Y	G	S	P	E	T	T	T	G	G	N	A	L	K	F	Y	A	.	221			
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	C	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	A	.	227	
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	A	.	235
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	S	.	219	
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	S	.	219	
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	S	.	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	A	.	227	
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	A	.	218
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	A	.	218
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	A	.	218
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	A	.	218
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	L	R	K	I	T	G	N	I	K	N	A	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				

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	E	I	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 499 SM12261 RS08315 WP 078228268.1	E	I	E	E	384
NTDB id 527 SMSK321 RS11065 WP 001085454.1	E	I	E	E	384
NTDB id 453 Spy49 1753c ACI62003.1	E	D	.	.	378
NTDB id 408 SMU RS09530 WP 002262392.1	E	D	.	.	383
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 392835 GXM RS09290 WP 118170154.1	.	.	.	.	359
NTDB id 1245 Cj1673c YP 002345041.1	.	.	.	.	343
NTDB id 1211 C694 RS00795 WP 000963128.1	.	.	.	.	347
NTDB id 1214 NCTC11637 00359 SQJ03206.1	.	.	.	.	347
NTDB id 1334 RAOC RS04870 WP 004918236.1	.	.	.	.	343
NTDB id 1389 A4U84 RS07560 WP 021112712.1	372
NTDB id 1130 NGFG RS03960 WP 003688695.1	348
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NTDB id 1123 OK783 RS03845 WP 003688695.1	348
NTDB id 1427 RS RS02760 WP 011000510.1	352
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