

logo



NTDB id 600 KW2 RS01765 WP 011675413.1	MATK....KKTNFDDITKKYGA	ERDKALADALALIEKD	FGKGSIMRLGER	.ANQKVS	VSSGSLALDI	ALGAGGYPKGR	74
NTDB id 269 KZH43 RS08665 WP 001085462.1	.MAK....KPKKLEEISKKFGA	EREKALNDALKLEKD	FGKGSIMRLGER	.AEQKVQVMSSGSLALDI	ALGSGGYPKGR	73	
NTDB id 228 SPD RS09265 WP 001085462.1	.MAK....KPKKLEEISKKFGA	EREKALNDALKLEKD	FGKGSIMRLGER	.AEQKVQVMSSGSLALDI	ALGSGGYPKGR	73	
NTDB id 194 SPR RS08825 WP 001085462.1	.MAK....KPKKLEEISKKFGA	EREKALNDALKLEKD	FGKGSIMRLGER	.AEQKVQVMSSGSLALDI	ALGSGGYPKGR	73	
NTDB id 159 SP RS09750 WP 001085462.1	.MAK....KPKKLEEISKKFGA	EREKALNDALKLEKD	FGKGSIMRLGER	.AEQKVQVMSSGSLALDI	ALGSGGYPKGR	73	
NTDB id 499 SM12261 RS08315 WP 078228268.1	.MAK....KPKKLDEISKKFGA	EREKALNDALKLEKD	FGKGSIMRLGER	.AEQKVQVMSSGSLALDI	ALGSGGYPKGR	73	
NTDB id 527 SMSK321 RS11065 WP 001085454.1	.MAK....KPKKLDEISKKFGA	EREKALNDALKLEKD	FGKGSIMRLGER	.AEQKVQVMSSGSLALDI	ALGSGGYPKGR	73	
NTDB id 453 Spy49 1753c ACI62003.1	.MAK....KLKKNEEITKKFGD	ERRKALDDALKNIEKD	FGKGAVMRLGER	.AEQKVQVMSSGSLALDI	ALGAGGYPKGR	73	
NTDB id 408 SMU RS09530 WP 002262392.1	.MAK....RIKKTEEITKKFGD	ERRKALDDALKNIEKD	FGKGAVMRLGER	.AEQKVQVMSSGSLALDI	ALGAGGYPKGR	73	
NTDB id 625 LCA RS02525 WP 011374196.1	.....MAKD	ERQAALDAALKKIEKN	FGKGSIMRMGEK	.VDTQVSTVSSGSLALDEALGVGGYP	RGR	60
NTDB id 373493 F0457 RS07245 WP 002478267.1	.....MDN	DRQKALDVTIKNMEKS	FGKGAVMRLGDN	.KRRRVSSVSTGSLALDIALGVGGYP	RGR	59
NTDB id 115 BSU 16940 NP 389576.2	.....MS	DRQAALDMALKQIEKQ	FGKGSIMKLGK	.TDTRIISTVPSGSLALDIALGIGGYP	RGR	58
NTDB id 1313 DR RS12030 WP 010888966.1	.....MSKDATKEISAPTD	ERSKATETAMSQIEKA	FGKGSIMKLGAE	.SKLDVQVVSTGSLSLDLALGVGGIP	RGR	72
NTDB id 1245 Cj1673c YP 002345041.1	.....MDDN	KRKSALDAALKSLDKT	FGKGTILRLGDK	.EVEQIDSIGTGSVGLDLALGIGGVP	RGR	59
NTDB id 1211 C694 RS00795 WP 000963128.1	.....MAIDE	DKQKATISLAIKQIDKV	FGKGALVRLGDK	.QVEKIDSISTGSLGLDLALGIGGVP	RGR	61
NTDB id 1214 NCTC11637 00359 SQJ03206.1	.....MAIDE	DKQKATISLAIKQIDKV	FGKGALVRLGDK	.QVEKIDAISTGSLGLDLALGIGGVP	RGR	61
NTDB id 1334 RAOC RS04870 WP 004918236.1	.....MAKT..ETTSPND	DKKALAAVLEKLDKT	YGKGTVMKLGDT	VTVDHNIIEVIPS	PSGSLGLDLALGVGGYPKGR	68
NTDB id 1389 A4U84 RS07560 WP 021112712.1	.MAENKSSKNNTV..VKQVEPE	QKQALEAALAIKQIEKQ	FGKGSIMKLGQT	.EQLDIESVSTGSLGLDLALGIGGLP	MGR	76	
NTDB id 1130 NGFG RS03960 WP 003688695.1	.....MSD	DKSKALAAALAIKQIEKS	FGKGAIMKMDGSQ	QEEENLEVISTGSLGLDLALGVGGLP	RGR	60
NTDB id 1124 NGFG RS03960 WP 003688695.1	.....MSD	DKSKALAAALAIKQIEKS	FGKGAIMKMDGSQ	QEEENLEVISTGSLGLDLALGVGGLP	RGR	60
NTDB id 1123 OK783 RS03845 WP 003688695.1	.....MSD	DKSKALAAALAIKQIEKS	FGKGAIMKMDGSQ	QEEENLEVISTGSLGLDLALGVGGLP	RGR	60
NTDB id 1427 RS RS02760 WP 011000510.1	.MEDG.....K..KAASMSA	EKQKALAAALAIKQIEKQ	FGKGSIMKMGDA	.EVEPVQVVSTGSLGLDVALGVGGLP	RGR	68	
NTDB id 1165 A1552VC RS01565 WP 000344154.1	.....MDEN	KQKALAAALGQIEKQ	FGKGSIMRLGDN	.RAMDVETISTGSLSLDI	ALGAGGLPMGR	59
NTDB id 1142 GTF74 RS11550 WP 000344154.1	.....MDEN	KQKALAAALGQIEKQ	FGKGSIMRLGDN	.RAMDVETISTGSLSLDI	ALGAGGLPMGR	59
NTDB id 1022 ACIAD RS06390 WP 004925639.1	.....MDDN	KSKALQAALSQIEKQ	FGKNTVMRLGDN	.TVQAVEAVSTGSLTLDI	ALGIGGLPKGR	59
NTDB id 1074 ABD1 RS10195 WP 000344167.1	.....MDEN	KSKALQAALSQIEKQ	FGKNTVMRLGDN	.TVQAVEAVSTGSLTLDI	ALGIGGLPKGR	59
NTDB id 1205 PSJM300 05545 AFN77183.1MDEN	KKRALAAALGQIEKQ	FGKGAVMRMGDH	.DRQAIPSI	STGSLGLDI	ALGIGGLPKGR	59
consensus		* * * * *	* * * * *	* * * * *	* * * * *	* * * * *	

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NTDB id 600	KW2	RS01765	WP 011675413.1	SVRLDVRGSTKIEEGS.GDNKTQIGKIKTKIKVVKNKVAPPFKVALVDIMFGEGISSTGELINIAVEEGI	IKKSGAWFAYN	312					
NTDB id 269	KZH43	RS08665	WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETN	VGKETKIKVVKNKVAPPFKAEAVVEIMYGEGISKTGELLKIASDLDI	IKKAGAWYSYK	311				
NTDB id 228	SPD	RS09265	WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETN	VGKETKIKVVKNKVAPPFKAEAVVEIMYGEGISKTGELLKIASDLDI	IKKAGAWYSYK	311				
NTDB id 194	SPR	RS08825	WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETN	VGKETKIKVVKNKVAPPFKAEAVVEIMYGEGISKTGELLKIASDLDI	IKKAGAWYSYK	311				
NTDB id 159	SP	RS09750	WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETN	VGKETKIKVVKNKVAPPFKAEAVVEIMYGEGISKTGELLKIASDLDI	IKKAGAWYSYK	311				
NTDB id 499	SM12261	RS08315	WP 078228268.1	SVRLDVRGSTQIKGTG.DQKDTN	VGKETKIKVVKNKVAPPFKAEAFVEIMYGEGISKTGELLKIASDLDI	IKKAGAWYSYK	311				
NTDB id 527	SMSK321	RS11065	WP 001085454.1	SVRLDVRGSTQIKGTG.DQKDTN	VGKETKIKVVKNKVAPPFKAEAFVEIMYGEGISKTGELLKIASDLDI	IKKAGAWYSYK	311				
NTDB id 453	Spy49	1753c	ACI62003.1	SVRLDVRGTTQIKGTG.DQKDS	IGKETKIKVVKNKVAPPFKVAEVEIMYEGISRTGELVKIASDLDI	IQKAGAWFSYN	311				
NTDB id 408	SMU	RS09530	WP 002262392.1	SVRLDVRGNTQIKGTG.EQKDSN	IGKETKIKVVKNKVAPPFKAEAFVEIIMYGEGISRTGELVKIASDLGI	IQKAGAWYSYN	311				
NTDB id 625	LCA	RS02525	WP 011374196.1	TVRLEVRRAETIKNGT.....DM	IGNRARIKVVKNKVAPPFKVAEVDIMYGGISRTGELVDMAVEKDI	INKSGSWYSYG	294				
NTDB id 373493	F0457	RS07245	WP 002478267.1	SVRLEVRRAEQLKQGG.....DIV	GNRTKIKVVKNKVAPPFKVAEVDIMYGGISKEGELIDLGV EHDIV	DKSGAWYSYN	293				
NTDB id 115	BSU	16940	NP 389576.2	SVRLEVRRAEQLKQGN.....DVM	GNKTKIKVVKNKVAPPFR	TAEVDIMYGEGISKEGETIDLGT	ELDIVQKSGSWYSYE	292			
NTDB id 1313	DR	RS12030	WP 010888966.1	SVRLDVRKIGQ....PTKVGND	AVANTVKIKTVKNKVAAPFK	LEVELALVYGGKGFQDLS	DLVGLAADMDI	IKKAGSFYSYG	307		
NTDB id 1245	Cj1673c	YP 002345041.1		SVRLDVRKVAT....L.KQNE	EPIGNRVKVVKNKVAPPFR	QAEFDVMFGEGLSREGELIDY	GVKLDIVDKSGAWFSYK	294			
NTDB id 1211	C694	RS00795	WP 000963128.1	SVRIDIRRIAS....L.KQNE	QHIGNRAKAKVVKNKVAPPFR	EAEFDIMFGEGISKEGETIDY	GVKLDIVDKSGAWLSYQ	296			
NTDB id 1214	NCTC11637	00359	SQJ03206.1	SVRIDIRRIAA....L.KQNE	QHIGNRAKAKVVKNKVAPPFR	EAEFDIMFGEGISKEGETIDY	GVKLDIVDKSGAWLSYQ	296			
NTDB id 1334	RAOC	RS04870	WP 004918236.1	SVRIDIRRLSDTGKIKDKSGEV	IGNRTKVVKNKVAPPFK	SAEFDIMYGEGVSKVGEILD	VATDLDI	IQKSGSWFSYQ	307		
NTDB id 1389	A4U84	RS07560	WP 021112712.1	SVRLDIRRCGV....V.KDG	DEIIGSETKVVKNKVAPPFR	EVQFDIMYGEGISRMNELL	ILAEANGFI	IKKSGAWFSYD	310		
NTDB id 1130	NGFG	RS03960	WP 003688695.1	SVRLDIRRTGS....I.KKG	EEVLGNETR	VKVIKNKVAPPFRQAEFD	DILYEGISWEGELID	IGVKNDI	INKSGAWYSYN	294	
NTDB id 1124	NGFG	RS03960	WP 003688695.1	SVRLDIRRTGS....I.KKG	EEVLGNETR	VKVIKNKVAPPFRQAEFD	DILYEGISWEGELID	IGVKNDI	INKSGAWYSYN	294	
NTDB id 1123	OK783	RS03845	WP 003688695.1	SVRLDIRRTGS....I.KKG	EEVLGNETR	VKVIKNKVAPPFRQAEFD	DILYEGISWEGELID	IGVKNDI	INKSGAWYSYN	294	
NTDB id 1427	RS	RS02760	WP 011000510.1	SVRLDIRRIGS....I.KKG	DEVVGNETKVVKNKVAPPFR	EAEFD	DILYGAGVSREGEI	IDLGV	EAKVVEKSGAWYSYN	302	
NTDB id 1165	A1552VC	RS01565	WP 000344154.1	SVRLDIRRTGA....I.KEG	EEVVGNETRIKVVKNKIA	APFKAEANTQIMYGG	GFNREGELIDL	GVKHKM	VEKSGAWYSYN	293	
NTDB id 1142	GTF74	RS11550	WP 000344154.1	SVRLDIRRTGA....I.KEG	EEVVGNETRIKVVKNKIA	APFKAEANTQIMYGG	GFNREGELIDL	GVKHKM	VEKSGAWYSYN	293	
NTDB id 1022	ACIAD	RS06390	WP 004925639.1	SVRLDIRRIGQ....V.KEG	DEIIGSETKVVKNKM	APPFR	EAEIFQILYGKGVN	QLGELVDLAV	QQNIV	QKAGAWYSYQ	293
NTDB id 1074	ABD1	RS10195	WP 000344167.1	SVRLDIRRIGQ....V.KEG	DEIIGSETKVVKNKM	APPFR	EAEIFQILYGKGTN	QLGELVDLAV	QQDIV	QKAGAWYSYQ	293
NTDB id 1205	PSJM300	05545	AFN77183.1	SVRLDIRRTGA....V.KEG	DEVVGS	ETRVKVVKNKVAPPFR	QAEFQILYGKGIY	RNGE	IIDLGV	QQGLVEKSGAWAYK	293
consensus				*!!**!* *	* ** *****!!*!!*!!*!!* *	*****!*!*** **	***** **	*** ! !*****!			

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NTDB id 600 KW2 RS01765 WP 011675413.1
 NTDB id 269 KZH43 RS08665 WP 001085462.1
 NTDB id 228 SPD RS09265 WP 001085462.1
 NTDB id 194 SPR RS08825 WP 001085462.1
 NTDB id 159 SP RS09750 WP 001085462.1
 NTDB id 499 SM12261 RS08315 WP 078228268.1
 NTDB id 527 SMSK321 RS11065 WP 001085454.1
 NTDB id 453 Spy49 1753c ACI62003.1
 NTDB id 408 SMU RS09530 WP 002262392.1
 NTDB id 625 LCA RS02525 WP 011374196.1
 NTDB id 373493 FO457 RS07245 WP 002478267.1
 NTDB id 115 BSU 16940 NP 389576.2
 NTDB id 1313 DR RS12030 WP 010888966.1
 NTDB id 1245 Cj1673c YP 002345041.1
 NTDB id 1211 C694 RS00795 WP 000963128.1
 NTDB id 1214 NCTC11637 00359 SQJ03206.1
 NTDB id 1334 RAOC RS04870 WP 004918236.1
 NTDB id 1389 A4U84 RS07560 WP 021112712.1
 NTDB id 1130 NGFG RS03960 WP 003688695.1
 NTDB id 1124 NGFG RS03960 WP 003688695.1
 NTDB id 1123 OK783 RS03845 WP 003688695.1
 NTDB id 1427 RS RS02760 WP 011000510.1
 NTDB id 1165 A1552VC RS01565 WP 000344154.1
 NTDB id 1142 GTF74 RS11550 WP 000344154.1
 NTDB id 1022 ACIAD RS06390 WP 004925639.1
 NTDB id 1074 ABD1 RS10195 WP 000344167.1
 NTDB id 1205 PSJM300 05545 AFN77183.1

consensus



DEKIGQGA**E**KAKNYLKEHQ**DV**FDEIDHKVRAAHG**L**LDSEVAETEEETTASKTKAKAKKKEEKAVETEEIELELED..... 387
 DEKIGQGS**E**NAKKYLA**E**HP**E**IFDEIDKQVRSK**F**GLIDGEEVSEQD**T**ENKKDE....PKKEEA..VNEEVPLDLGDELEIE 385
 DEKIGQGS**E**NAKKYLA**E**HP**E**IFDEIDKQVRSK**F**GLIDGEEVSEQD**T**ENKKDE....PKKEEA..VNEEVPLDLGDELEIE 385
 DEKIGQGS**E**NAKKYLA**E**HP**E**IFDEIDKQVRSK**F**GLIDGEEVSEQD**T**ENKKDE....PKKEEA..VNEEVPLDLGDELEIE 385
 DEKIGQGS**E**NAKKYLA**E**HP**E**IFDEIDKQVRSK**F**GLIDGEEVSEQD**T**ENKKDE....PKKEEA..VNEEVPLDLGDELEIE 385
 DEKIGQGS**E**NAKKYLAD**N**PE**I**FDEIDHQRV**V**Q**F**GLIDGEEIA**E**S....KKDE....AAQVDS..VNEEVTLDLGDELEIE 381
 DEKIGQGS**E**NAKKYLAD**N**PE**V**FAEIDHQRV**V**Q**F**GLIDGEEAA**E**S....KKDE....VAQVDS..VNEEVTLDLGDELEIE 381
 GEKIGQGS**E**NAKRYLAD**H**P**Q**L**F**DEIDR**K**V**R**V**K**F**G**LEESEEEESAMAVASE.....E.....TDDLALDLNGIEIE 377
 GEKIGQGS**E**NAK**F**LAD**N**PE**I**F**D**D**I**D**H**K**V**R**V**Q**Y**GLIEEDNTEEKQSSKEK.....ETDEK..ADKNLVLELDDTIELE 382
 SERIGQGR**E**NAK**N**YLAD**H**ED**V**ED**V**RLK**V**RAA**Y**GISDVPEEDLPTTEDEQINILPDDSTEE..... 355
 GDRMGQGG**K**ENV**K**TYL**K**EN**P**EV**R**DD**I**DR**K**L**R**E**K**L**G**IFDGDVVEEK**E**AKAPES..LFDEE..... 348
 EERLGQGR**E**NA**K**Q**F**L**K**EN**K**D**I**ML**M**I**Q**E**Q**IRE**H**Y**G**L**D**NN**G**V**V**Q**Q**AEETQEELEFEE..... 348
 DERIGQGG**K**E**K**TI**A**Y**I**A**E**R**P**E**M**E**Q**E**I**RDRVMAAIRAGNAGEAPALAPAPAAPEAAEA..... 363
 DKKLGQGR**E**NS**K**A**F**L**K**EN**P**E**I**A**D**E**I**T**K**A**I**Q**N**S**M**G**I**E**G**M**I**....SGSEDD..EGEE..... 343
 DKKLGQGR**E**NA**K**ALL**K**ED**K**AL**A**D**E**IT**L**K**I**ES**I**GS**N**E**E**I....MPLPDE..PLEEME..... 347
 DKKLGQGR**E**NA**K**ALL**K**ED**K**AL**A**D**E**IT**L**K**I**ES**I**GS**N**E**E**I....MPLPDE..PLEEME..... 347
 DT**K**L**G**Q**G**R**D**T**V****K**EL**I****K**D**N**PE**L**A**E**L**E**A**K**IRE**K**L**Q**A**K**..... 343
 GTKIGQGG**K**NA**V**K**W**L**K**EN**P**E**I**A**D****K**L**E**Q**E**IR**N**T**L**A**S**N**P**S....VLKATASDSN**D**ESD..VEEFSEEL..... 372
 GAKIGQGG**K**D**N**RV**V**L**K**EN**P**E**I**S**D**E**I**D**A**K**I**R**A**L**N**G**V**E**M**H**I**....TEGTQDETDGER.....PEE..... 348
 GAKIGQGG**K**D**N**RV**V**L**K**EN**P**E**I**S**D**E**I**D**A**K**I**R**A**L**N**G**V**E**M**H**I**....TEGTQDETDGER.....PEE..... 348
 GAKIGQGG**K**D**N**RV**V**L**K**EN**P**E**I**S**D**E**I**D**A**K**I**R**A**L**N**G**V**E**M**H**I**....TEGTQDETDGER.....PEE..... 348
 GERIGQGR**D**N**C**R**E**F**L**R**E**NA**E**L**A**R**E**I**E**N**K**V**R**E**H**L**G**V**T**PM**G**....AVTLA.EEVEED..... 352
 GDKIGQGG**K**AN**A**C**K**Y**L**EN**P**E**I**A**K**T**L**D**K**K**L**R**E**M**L**L**N**P**E**N**M**....QLIAETSSAADDVE..FGAVPEEF..... 354
 GDKIGQGG**K**AN**A**C**K**Y**L**EN**P**E**I**A**K**T**L**D**K**K**L**R**E**M**L**L**N**P**E**N**M**....QLIAETSSAADDVE..FGAVPEEF..... 354
 GNKIGQGG**K**NN**V**IR**Y**LE**E**N**P**Q**I**S**T**E**I**E**A**V**I**R**E**Q**L**L**T**K**A**S**D**....QTAA.HDETEEEP**D**..LL..ES..... 349
 GNKIGQGG**K**NN**V**IR**Y**FE**E**NN**Q**I**A**E**E**I**E**R**N**I**R**E**Q**L**L**T**T**G**T**N....GAVQ.I.EDEE**E**P**D**..LL..LES..... 349
 GSKIGQGG**K**AN**A**A**K**Y**L**E**E**N**P**E**I**G**Q**E**I**E**Q**Q**I**R**A**K**L**L**V**T**S**A**N**....TKATPVAEDLADAD..I..... 347

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NTDB id 600 KW2 RS01765 WP 011675413.1	...	387
NTDB id 269 KZH43 RS08665 WP 001085462.1	IEE	388
NTDB id 228 SPD RS09265 WP 001085462.1	IEE	388
NTDB id 194 SPR RS08825 WP 001085462.1	IEE	388
NTDB id 159 SP RS09750 WP 001085462.1	IEE	388
NTDB id 499 SM12261 RS08315 WP 078228268.1	IEE	384
NTDB id 527 SMSK321 RS11065 WP 001085454.1	IEE	384
NTDB id 453 Spy49 1753c ACI62003.1	D..	378
NTDB id 408 SMU RS09530 WP 002262392.1	D..	383
NTDB id 625 LCA RS02525 WP 011374196.1	...	355
NTDB id 373493 FO457 RS07245 WP 002478267.1	...	348
NTDB id 115 BSU 16940 NP 389576.2	...	348
NTDB id 1313 DR RS12030 WP 010888966.1	...	363
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
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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