

logo

NTDB id 600 KW2 RS01765 WP 011675413.1	MATKK....KTNFDDITKKYGAERDKALADALALIEKD FGKGSIMRLGEA.ANQKVS	74
NTDB id 269 KZH43 RS08665 WP 001085462.1	.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKD FGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR	73
NTDB id 228 SPD RS09265 WP 001085462.1	.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKD FGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR	73
NTDB id 194 SPR RS08825 WP 001085462.1	.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKD FGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR	73
NTDB id 159 SP RS09750 WP 001085462.1	.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKD FGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR	73
NTDB id 499 SM12261 RS08315 WP 078228268.1	.MAKK....PKKLDEISKKFGAEREKALNDALKLIEKD FGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR	73
NTDB id 527 SMSK321 RS11065 WP 001085454.1	.MAKK....PKKLDEISKKFGAEREKALNDALKLIEKD FGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR	73
NTDB id 408 SMU RS09530 WP 002262392.1	.MAKR....IKKTEEITKKFGDERKKALDDALKNIEKD FGKGAVMRLGER.AEQKVQVMSSGSLALDIALGAGGYPKGR	73
NTDB id 120650 SPAP1 RS09360 WP 010922753.1	.MAKK....LKKNEEITKKFGDERRKALDDALKNIEKD FGKGAVMRLGER.AEQKVQVMSSGSLALDIALGAGGYPKGR	73
NTDB id 453 Spy49 1753c ACI62003.1	.MAKK....LKKNEEITKKFGDERRKALDDALKNIEKD FGKGAVMRLGER.AEQKVQVMSSGSLALDIALGAGGYPKGR	73
NTDB id 625 LCA RS02525 WP 011374196.1	MAKDERQAALDAALKKIEKNFGKGSIMRMGEK.VDTQVSTVSSGSLALDEALGVGGYPGR	60
NTDB id 115 BSU 16940 NP 389576.2	MSDRQAALDMALKQIEKQFGKGSIMKLGAE.TDTRISTVPSGSLALDTALGIGGYPRGR	58
NTDB id 1313 DR RS12030 WP 010888966.1	MSKDATKEISAPTDAKERSKATETAMSQIEKAFGKGSIMKLGAE.SKLDVQVVSTGSLSLDLALGVGGIPGR	72
NTDB id 1245 Cj1673c YP 002345041.1	MDNKRKSLDAALKSLDKTFGKGTILRLGDK.EVEQIDSIGTGSVGLDLALGIGGVPKGR	59
NTDB id 1214 NCTC11637 00359 SQJ03206.1	MAIDEDKQKATISLAIKQIDKVFVGKALVRLGDK.QVEKIDAISTGSLGLDLALGIGGVPKGR	61
NTDB id 1211 C694 RS00795 WP 000963128.1	MAIDEDKQKATISLAIKQIDKVFVGKALVRLGDK.QVEKIDSISTGSLGLDLALGIGGVPKGR	61
NTDB id 1334 RAOC RS04870 WP 004918236.1	MAKT..ETTSNDDKKKALAAVLEKLDKTYGKGTVMKLGDTVDHNIIEVIPSGLGLDLALGVGGYPKGR	68
NTDB id 1389 A4U84 RS07560 WP 021112712.1	.MAENKKSSKNNTV..VKQVEPEQKKQALEAALAQIEKQFGKGSIMKLGQT.EQLDIESVSTGSLGLDLALGIGGLPMGR	76
NTDB id 1130 NGFG RS03960 WP 003688695.1	MSDDKSKALAAALAQIEKSFGKGAIMKMDGSQQUEENLEVISTGSLGLDLALGVGGLPRGR	60
NTDB id 1124 NGFG RS03960 WP 003688695.1	MSDDKSKALAAALAQIEKSFGKGAIMKMDGSQQUEENLEVISTGSLGLDLALGVGGLPRGR	60
NTDB id 1123 OK783 RS03845 WP 003688695.1	MSDDKSKALAAALAQIEKSFGKGAIMKMDGSQQUEENLEVISTGSLGLDLALGVGGLPRGR	60
NTDB id 1427 RS RS02760 WP 011000510.1	.MEDG.....K..KAASMSAEKQKALAAALAQIEKQFGKGSIMKMGDA.EVEPVQVVSTGSLGLDVALGVGGLPRGR	68
NTDB id 1165 A1552VC RS01565 WP 000344154.1	MDENKQKALAAALGQIEKQFGKGSIMRLGDN.RAMDVETISTGSLSLDIALGAGGLPMGR	59
NTDB id 1142 GTF74 RS11550 WP 000344154.1	MDENKQKALAAALGQIEKQFGKGSIMRLGDN.RAMDVETISTGSLSLDIALGAGGLPMGR	59
NTDB id 1022 ACIAD RS06390 WP 004925639.1	MDDNKSKALQAALSQIEKQFGKNTVMRLGDN.TVQAVEAVSTGSLTLDIALGIGGLPKGR	59
NTDB id 1074 ABD1 RS10195 WP 000344167.1	MDENKSKALQAALSQIEKQFGKNTVMRLGDN.TVQAVEAVSTGSLTLDIALGIGGLPKGR	59
NTDB id 1205 PSJM300 05545 AFN77183.1	MDENKKRALAAALGQIEKQFGKGAVMRMGDH.DRQAIPSI	59
consensus	*** **	

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NTDB id 600 KW2 RS01765 WP 011675413.1	SVRLDVRGSTKIEEGS.GDNKTQ	IGKITKIKVVKNKVAPPFKEA	VALVDIMFGEGISSTGELIN	IAVEEGIIKKSGAWFAYN	312
NTDB id 269 KZH43 RS08665 WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETN	VGKETKIKVVKNKVAPPFKEA	AVVEIMYEGEGISKTGELLK	IASDLDIIKKAGAWYSYK	311
NTDB id 228 SPD RS09265 WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETN	VGKETKIKVVKNKVAPPFKEA	AVVEIMYEGEGISKTGELLK	IASDLDIIKKAGAWYSYK	311
NTDB id 194 SPR RS08825 WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETN	VGKETKIKVVKNKVAPPFKEA	AVVEIMYEGEGISKTGELLK	IASDLDIIKKAGAWYSYK	311
NTDB id 159 SP RS09750 WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETN	VGKETKIKVVKNKVAPPFKEA	AVVEIMYEGEGISKTGELLK	IASDLDIIKKAGAWYSYK	311
NTDB id 499 SM12261 RS08315 WP 078228268.1	SVRLDVRGSTQIKGTG.DQKDTN	VGKETKIKVVKNKVAPPFKEA	FAVEIMYEGEGISKTGELLK	IASDLDIIKKAGAWYSYK	311
NTDB id 527 SMSK321 RS11065 WP 001085454.1	SVRLDVRGSTQIKGTG.DQKDTN	VGKETKIKVVKNKVAPPFKEA	FAVEIMYEGEGISKTGELLK	IASDLDIIKKAGAWYSYK	311
NTDB id 408 SMU RS09530 WP 002262392.1	SVRLDVRGNTQIKGTG.EQKDSN	IGKETKIKVVKNKVAPPFKEA	FAVEIITYEGEGISRTGELV	KIASDLGI IQKAGAWYSYN	311
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NTDB id 453 Spy49 1753c ACI62003.1	SVRLDVRGTTQIKGTG.DQKDSS	IGKETKIKVVKNKVAPPFKEA	VAEVEIMYEGEGISRTGELV	KIASDLDIIQKAGAWFSYN	311
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NTDB id 115 BSU 16940 NP 389576.2	SVRLEVRRAEQLKQGN.....DV	MGNKTKIKVVKNKVAPPFRTA	EAEDIMYEGEGISKEGEITD	LGTELDIIQKSGSWYSYE	292
NTDB id 1313 DR RS12030 WP 010888966.1	SVRLDVRKIGQ....PTKVGND	AVANTVKIKTVKNKVAAPFKE	VELALVYGKGFQDQLSDLV	GLAADMDIIKKAGSFYSYG	307
NTDB id 1245 Cj1673c YP 002345041.1	SVRLDVRKVAT....L.KQNEEP	IGNRVKVVKNKVAPPFRQA	AEFDVMFGEGLSREGELIDY	GVKLDIVDKSGAWFSYK	294
NTDB id 1214 NCTC11637 00359 SQJ03206.1	SVRIDIRRIAA....L.KQNEQH	IGNRAKAKVVKNKVAPPFRE	AEFDIMFGEGISKEGEITDY	GVKLDIVDKSGAWLSYQ	296
NTDB id 1211 C694 RS00795 WP 000963128.1	SVRIDIRRIAS....L.KQNEQH	IGNRAKAKVVKNKVAPPFRE	AEFDIMFGEGISKEGEITDY	GVKLDIVDKSGAWLSYQ	296
NTDB id 1334 RAOC RS04870 WP 004918236.1	SVRIDIRRLSDTGKIKDKSGEV	IGNRTKVVKNKVAPPFKSA	AEFDIMYEGGVSKVGEILD	VATDLDIIQKSGSWFSYQ	307
NTDB id 1389 A4U84 RS07560 WP 021112712.1	SVRLDIRRCGV....V.KDGDEI	IGSETKVVKNKVAPPFREVQ	FDIMYEGGISRMNELLILA	EANGFIKKSGAWFSYD	310
NTDB id 1130 NGFG RS03960 WP 003688695.1	SVRLDIRRTGS....I.KKGE	EVVGNETRVRKVIKNKVAPP	FRQAEDILYEGEGISWEGEL	IDIGVKNDIINKSGAWYSYN	294
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NTDB id 1427 RS RS02760 WP 011000510.1	SVRLDIRRIGS....I.KKGE	DEVVGNETKVVKNKVAPPF	REAIFFDILYGAGVSREGE	IIDLGVAKVVEKSGAWYSYN	302
NTDB id 1165 A1552VC RS01565 WP 000344154.1	SVRLDIRRTGA....I.KEGE	EVVGNETRIKVVKNKIAAP	FKAEANTQIMYGGGFNREG	ELIDLGVKHKMVEKSGAWYSYN	293
NTDB id 1142 GTF74 RS11550 WP 000344154.1	SVRLDIRRTGA....I.KEGE	EVVGNETRIKVVKNKIAAP	FKAEANTQIMYGGGFNREG	ELIDLGVKHKMVEKSGAWYSYN	293
NTDB id 1022 ACIAD RS06390 WP 004925639.1	SVRLDIRRIGQ....V.KEGDEI	IGSETKVVKNKMAPPFRE	AIQFQILYGKGVNQLGEL	VDLAVQQNIVQKAGAWYSYQ	293
NTDB id 1074 ABD1 RS10195 WP 000344167.1	SVRLDIRRIGQ....V.KEGDEI	VGSETKVVKNKMAPPFK	EAIQFQILYGKGTNQLGEL	VDLAVQQDIVQKAGAWYSYQ	293
NTDB id 1205 PSJM300 05545 AFN77183.1	SVRLDIRRTGA....V.KEG	DEVVGSETRVRVVKNKVAPP	FRQAEFQILYGKGIYRN	GEIIDLGVQQGLVEKSGAWYAYK	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 408 SMU RS09530 WP 002262392.1
NTDB id 120650 SPAP1 RS09360 WP 010922753.1
NTDB id 453 Spy49 1753c ACI62003.1
NTDB id 625 LCA RS02525 WP 0011374196.1
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NTDB id 1313 DR RS12030 WP 010888966.1
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NTDB id 1214 NCTC11637 00359 SQJ03206.1
NTDB id 1211 C694 RS00795 WP 000963128.1
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
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NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1074 ABD1 RS10195 WP 000344167.1
NTDB id 1205 PSJM300 05545 AFN77183.1
consensus

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DEKIGQGS	ENAKKYLA	ADN	PEIF	DEID	HQV	RVVQ	F	LIDGE	EE	IAES	...	KKDE	...	AAQVDS	..	VNEEV	PLDL	GD	DELEIE	381					
DEKIGQGS	ENAKKYLA	ADN	PEIF	DEID	HQV	RVVQ	F	LIDGE	EE	IAES	...	KKDE	...	AAQVDS	..	VNEEV	PLDL	GD	DELEIE	381					
DEKIGQGS	ENAKKFLADN	PEIF	DD	IDHKV	RVVQ	F	GLIEED	N	TEEK	QSSKEK	...	ETDEK	..	ADKNL	VLELD	DDT	IE	LE	382						
DEKIGQGS	ENAKKFLADN	PEIF	DD	IDHKV	RVVQ	F	GLIEED	N	TEEK	QSSKEK	...	ETDEK	..	ADKNL	VLELD	DDT	IE	LE	382						
DEKIGQGS	ENAKRYLADH	PEIF	DEID	LKVR	VKF	G	LLEE	SEES	AMAVASE		E		TDDL	LALD	LDNG	IE	IE	377							
DEKIGQGS	ENAKRYLADH	PEIF	DEID	LKVR	VKF	G	LLEE	SEES	AMAVASE		E		TDDL	LALD	LDNG	IE	IE	377							
SERIGQG	RENAKKN	YLA	ADH	DE	VE	DLKVR	AA	Y	G	ISDV	PEED	LP	TT	DE	Q	I	NILP	DD	ST		355				
SERIGQG	RENAKKN	YLA	ADH	DE	VE	DLKVR	AA	Y	G	ISDV	PEED	LP	TT	DE	Q	I	NILP	DD	ST		355				
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EERLGG	RENAKQFL	KEN	DK	IM	LM	I	QEQ	I	REHY	G	LDNN	GVV	QQ	AA	ET	QEEL	E	E	F	E		348			
DERIGQG	KEKTI	AI	YIA	ER	PEME	Q	EIR	DRV	MAA	IRAG	NAGE	APAL	AP	AA	PEAA	E	A		363						
DERIGQG	KEKTI	AI	YIA	ER	PEME	Q	EIR	DRV	MAA	IRAG	NAGE	APAL	AP	AA	PEAA	E	A		363						
DKKLGG	RENSKAF	LKEN	PEI	AD	EIT	KAI	QNSM	G	I	EGMI		SG	SEDD	..	EGE	..	E		343						
DKKLGG	RENSKAF	LKEN	PEI	AD	EIT	KAI	QNSM	G	I	EGMI		SG	SEDD	..	EGE	..	E		343						
DKKLGG	RENAKALL	KED	KAL	AD	EIT	LK	IKES	IG	SNEEI		MPL	PDE	..	PLE	..	EME		347							
DKKLGG	RENAKALL	KED	KAL	AD	EIT	LK	IKES	IG	SNEEI		MPL	PDE	..	PLE	..	EME		347							
DKKLGG	RENAKALL	KED	KAL	AD	EIT	LK	IKES	IG	SNEEI		MPL	PDE	..	PLE	..	EME		347							
DTKLGG	RD	TVKEL	IKD	N	PELA	E	LEAK	I	REKL	QAK									343						
DTKLGG	RD	TVKEL	IKD	N	PELA	E	LEAK	I	REKL	QAK									343						
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GKIGQG	KDN	VRV	WLKEN	PEI	S	DEI	DAK	I	R	AL	NG	V	EMHI	...	TEGT	Q	DE	T	DGE	..	R	...	PEE		348
GKIGQG	KDN	VRV	WLKEN	PEI	S	DEI	DAK	I	R	AL	NG	V	EMHI	...	TEGT	Q	DE								

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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
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NTDB id 1123 OK783 RS03845 WP 003688695.1	...	348
NTDB id 1427 RS RS02760 WP 011000510.1	...	352
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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