

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	N	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	I	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	I	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	I	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	I	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	I	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	I	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	I	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	I	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	I	153	
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	T	A	A	Y	I	D	A	E	N	A	M	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	A	D	A	L	V	S	S	G	A	V	D	I	140			
NTDB id 46595 SARLGA251 RS06445 WP 000368170.1	I	I	E	I	Y	G	P	E	S	S	G	K	T	T	V	A	L	H	A	I	A	E	V	Q	S	N	G	G	V	A	A	F	I	D	A	E	H	A	L	D	P	E	Y	A	Q	A	L	G	V	D	I	N	N	L	Y	L	S	Q	P	D	H	G	E	Q	G	L	E	I	A	E	A	F	V	R	S	G	A	V	D	I	139
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 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	T	C	A	F	I	D	A	E	H	A	L	D	P	V	Y	A	R	A	L	G	V	N	I	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	V	D	I	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	I	139
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	G	I	D	L	141
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	G	I	D	L	141
NTDB id 1334 RAO C 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	T	A	A	F	I	D	A	E	H	A	L	D	P	M	H	Y	A	E	K	L	G	I	N	L	E	L	L	V	S	Q	P	D	N	G	E	Q	A	L	E	I	A	D	S	L	T	R	S	G	V	D	I	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	I	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	I	156	
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	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	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	I	D	M	140	
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 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	I	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	I	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	T	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	T	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	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</							

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NTDB id 600	KW2	RS01765	WP 011675413.1	SVRLDVRG	STKIEEGS	.GDNKTQI	GKIITKI	KVVKNKV	VAPPFK	VALVDIM	FGEGIS	STGELIN	IAVEEGT	IKKSG	AWFAYN	312	
NTDB id 269	KZH43	RS08665	WP 001085462.1	SVRLDVRG	NQIKGTG	.DQKETNV	GKETKIK	VVKNKV	VAPPFK	EAVVEIM	YGEGIS	KTGELL	KIASDL	DIKKA	GAWYSYK	311	
NTDB id 228	SPD	RS09265	WP 001085462.1	SVRLDVRG	NQIKGTG	.DQKETNV	GKETKIK	VVKNKV	VAPPFK	EAVVEIM	YGEGIS	KTGELL	KIASDL	DIKKA	GAWYSYK	311	
NTDB id 194	SPR	RS08825	WP 001085462.1	SVRLDVRG	NQIKGTG	.DQKETNV	GKETKIK	VVKNKV	VAPPFK	EAVVEIM	YGEGIS	KTGELL	KIASDL	DIKKA	GAWYSYK	311	
NTDB id 159	SP	RS09750	WP 001085462.1	SVRLDVRG	NQIKGTG	.DQKETNV	GKETKIK	VVKNKV	VAPPFK	EAVVEIM	YGEGIS	KTGELL	KIASDL	DIKKA	GAWYSYK	311	
NTDB id 499	SM12261	RS08315	WP 078228268.1	SVRLDVRG	STQIKGTG	.DQKDTNV	GKETKIK	VVKNKV	VAPPFK	EAFVEIM	YGEGIS	KTGELL	KIASDL	DIKKA	GAWYSYK	311	
NTDB id 527	SMSK321	RS11065	WP 001085454.1	SVRLDVRG	STQIKGTG	.DQKDTNV	GKETKIK	VVKNKV	VAPPFK	EAFVEIM	YGEGIS	KTGELL	KIASDL	DIKKA	GAWYSYK	311	
NTDB id 453	Spy49	1753c	ACI62003.1	SVRLDVRG	TQIKGTG	.DQKDSST	GKETKIK	VVKNKV	VAPPFK	VAEVEIM	YGEGIS	RTGELV	KIASDL	DIKKA	GAWFSYN	311	
NTDB id 408	SMU	RS09530	WP 002262392.1	SVRLDVRG	NQIKGTG	.EQKDSNI	GKETKIK	VVKNKV	VAPPFK	EAFVEIM	YGEGIS	RTGELV	KIASDL	GIKKA	GAWYSYN	311	
NTDB id 625	LCA	RS02525	WP 011374196.1	TVRLEVRR	RAETIKNGT	....DM	IGNRARI	KVVKNKV	VAPPFK	VAEVDIM	YGGIS	RTGELV	DMAVEK	DIINKS	GSWYSYG	294
NTDB id 46595	SARLGA251	RS06445	WP 000368170.1	SVRLEVRR	RAEQLKQGG	....EIV	GNRTKI	KVVKNKV	VAPPFK	VAEVDIM	YGGIS	KEGEL	IDLGV	ENDIV	DKSGAWYSYN	293
NTDB id 115	BSU	16940	NP 389576.2	SVRLEVRR	RAEQLKQGN	....DVM	GNKTKI	KVVKNKV	VAPPFK	TAEVDIM	YGEGIS	KEGEL	IDLGT	ELDIV	QKSGSWYSYE	292
NTDB id 1313	DR	RS12030	WP 010888966.1	SVRLDVRK	IGQ....PT	KVGNDAV	ANTVKI	KTVKNK	VAPPFK	EVELAL	VYKGF	DLSDLV	GLAADM	DIKKA	GSFYSYG	307	
NTDB id 1245	Cj1673c	YP 002345041.1	SVRLDVRK	VAT....L	KQNEPI	GNRVK	VVKNKV	VAPPFK	QAEFDM	FMFGE	LSREGE	LIDYG	VKLDIV	DKSGAW	FSYK	294	
NTDB id 1211	C694	RS00795	WP 000963128.1	SVRIDIRRI	IAS....L	KQNEQHI	GNRAKA	KVVKNKV	VAPPFK	REAEFDM	FMFGE	LSREGE	LIDYG	VKLDIV	DKSGAW	LSYQ	296
NTDB id 1214	NCTC11637	00359	SQJ03206.1	SVRIDIRRI	IAA....L	KQNEQHI	GNRAKA	KVVKNKV	VAPPFK	REAEFDM	FMFGE	LSREGE	LIDYG	VKLDIV	DKSGAW	LSYQ	296
NTDB id 1334	RAOC	RS04870	WP 004918236.1	SVRIDIRRS	LSDTGKIK	DKSGEVI	GNRTKV	VVKNKV	VAPPFK	SAEFDM	YGE	VSKVGE	ILDVAT	DLDI	IQKSGSW	FSYQ	307
NTDB id 1389	A4U84	RS07560	WP 021112712.1	SVRLDIRRC	GV....V	KDGEIIG	SETKV	VVKNKV	VAPPFK	REVQFD	IMYGE	GISRM	NELLILA	EANGF	IKKSGAW	FSYD	310
NTDB id 1130	NGFG	RS03960	WP 003688695.1	SVRLDIRRT	TGS....I	KKGEV	LGNETRV	KVIKNK	VAPPFK	QAEFDI	LYGE	GISW	EGELID	IGVK	NDIINK	SGAWYSYN	294
NTDB id 1124	NGFG	RS03960	WP 003688695.1	SVRLDIRRT	TGS....I	KKGEV	LGNETRV	KVIKNK	VAPPFK	QAEFDI	LYGE	GISW	EGELID	IGVK	NDIINK	SGAWYSYN	294
NTDB id 1123	OK783	RS03845	WP 003688695.1	SVRLDIRRT	TGS....I	KKGEV	LGNETRV	KVIKNK	VAPPFK	QAEFDI	LYGE	GISW	EGELID	IGVK	NDIINK	SGAWYSYN	294
NTDB id 1427	RS	RS02760	WP 011000510.1	SVRLDIRRI	IGS....I	KKGEV	VGNETRI	KVVKNK	IAAPFK	EANTQIM	YGG	GFNRE	GELID	LG	VKHKM	VEKSGAWYSYN	293
NTDB id 1165	A1552VC	RS01565	WP 000344154.1	SVRLDIRRI	TGA....I	KEGEV	VGNETRI	KVVKNK	IAAPFK	EANTQIM	YGG	GFNRE	GELID	LG	VKHKM	VEKSGAWYSYN	293
NTDB id 1142	GTF74	RS11550	WP 000344154.1	SVRLDIRRI	TGA....I	KEGEV	VGNETRI	KVVKNK	IAAPFK	EANTQIM	YGG	GFNRE	GELID	LG	VKHKM	VEKSGAWYSYN	293
NTDB id 1022	ACIAD	RS06390	WP 004925639.1	SVRLDIRRI	IGQ....V	KEGDEI	IGSETKV	VVKNK	MAPPFK	EAI	FQILY	GKCVN	QLGEL	VDLAV	QQNIV	QKAGAWYSYQ	293
NTDB id 1074	ABD1	RS10195	WP 000344167.1	SVRLDIRRI	IGQ....V	KEGDEI	IGSETKV	VVKNK	MAPPFK	EAI	FQILY	GKCVN	QLGEL	VDLAV	QQNIV	QKAGAWYSYQ	293
NTDB id 1205	PSJM300	05545	AFN77183.1	SVRLDIRRI	TGA....V	KEGDEV	VGSETRV	KVVKNK	VAPPFK	QAEFQI	LYGK	GIYR	NGELI	DLG	VQQGLV	EKSGAWAYK	293
consensus				*!!**!*!		*	*	*****!***!!*!!*!!*!	*	*****!***	*****	*****	**	***	!!****!		

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NTDB id 499 SM12261 RS08315 WP 078228268.1	IEE	384
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consensus

- ⊠ non conserved
- ⊠ similar
- ⊠ ≥ 50% conserved