

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	Q	A	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	I	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	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	I	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	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	I	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	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	I	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	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	I	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	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	I	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	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	I	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	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	I	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	I	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 74847 KUH140013 RS04165 WP 000368166.1	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	D	N	L	L	I	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	T	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	E	L	L	I	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	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	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	I	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	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	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	I	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	I	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	I	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	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	N	A	V	D	I	139	
consensus	*	*	!	*	!	!	!	*	!	!	!																																																																						

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NTDB id 600 KW2 RS01765 WP 011675413.1	DEKIGQQA	EKAKNYL	KEHQDV	FDEID	HKVRAA	HGL	LLDDSEVA	ETEEETT	ASKTKAKAK	KEEKAV	ETEEIELE	LED	387	
NTDB id 269 KZH43 RS08665 WP 001085462.1	DEKIGQGS	ENAKKYL	AEHPFI	FDEID	KQVRSK	FGL	LIDGEEV	SEQDTEN	KKDE	PKKEEA . .	VNEEVPL	DLGDELEIE	385	
NTDB id 228 SPD RS09265 WP 001085462.1	DEKIGQGS	ENAKKYL	AEHPFI	FDEID	KQVRSK	FGL	LIDGEEV	SEQDTEN	KKDE	PKKEEA . .	VNEEVPL	DLGDELEIE	385	
NTDB id 194 SPR RS08825 WP 001085462.1	DEKIGQGS	ENAKKYL	AEHPFI	FDEID	KQVRSK	FGL	LIDGEEV	SEQDTEN	KKDE	PKKEEA . .	VNEEVPL	DLGDELEIE	385	
NTDB id 159 SP RS09750 WP 001085462.1	DEKIGQGS	ENAKKYL	AEHPFI	FDEID	KQVRSK	FGL	LIDGEEV	SEQDTEN	KKDE	PKKEEA . .	VNEEVPL	DLGDELEIE	385	
NTDB id 499 SM12261 RS08315 WP 078228268.1	DEKIGQGS	ENAKKYL	ADNPEI	FDEID	HQVVRV	QFGL	LIDGEEI	AES	KKDE	AAQVDS . .	VNEEVT	LDLGDELEIE	381	
NTDB id 527 SMSK321 RS11065 WP 001085454.1	DEKIGQGS	ENAKKYL	ADNPEV	FAEID	HQVVRV	QFGL	LIDGEEA	AES	KKDE	VAQVDS . .	VNEEVT	LDLGDELEIE	381	
NTDB id 453 Spy49 1753c ACI62003.1	GEKIGQGS	ENAKRYL	ADHPQL	FDEID	RKVRVK	FGL	LEESEEE	SAMAVASE	E	TDDLAL	DLDN	NGIEIE	377	
NTDB id 408 SMU RS09530 WP 002262392.1	GEKIGQGS	ENAKKFL	ADNPEI	FDDID	HKVVRV	QYGL	IEEDNTE	EKQSSKEK	ETDEK . .	ADKNLV	LELDDT	IEIE	382	
NTDB id 625 LCA RS02525 WP 011374196.1	SERIGQGR	ENAKNYL	ADHEDV	EDVRL	LVRAAY	GI	ISDVPEE	DLPTTEDE	QINILP	DDSTEE			355	
NTDB id 74847 KUH140013 RS04165 WP 000368166.1	GERMGQGK	ENVMKYL	KENPQI	KEEID	RKLRK	LGI	ISDGDVE	ETEDA	PKSLF	DEE			347	
NTDB id 115 BSU 16940 NP 389576.2	EERLGGCR	ENAKQFL	KENKDI	MLMIQ	EQIREH	YCI	LDNNGV	VVQQAEET	QEELE	FEE			348	
NTDB id 1313 DR RS12030 WP 010888966.1	DERIGQGK	EKTIA	YIAER	PEMEQ	EIRDRV	MAA	IRAGNAGE	APALAP	AAPAA	PEAAEA			363	
NTDB id 1245 Cj1673c YP 002345041.1	DKKLGQGR	ENSKAFL	KENPEI	IADEI	TKATQ	NSMCI	IEGMI	SGSEDD . .	EGEE				343	
NTDB id 1211 C694 RS00795 WP 000963128.1	DKKLGQGR	ENAKALL	KEDKAL	ADEIT	LKIKES	IGS	NEEI	MPLPDE . .	PLEEME				347	
NTDB id 1214 NCTC11637 00359 SQJ03206.1	DKKLGQGR	ENAKALL	KEDKAL	ADEIT	LKIKES	IGS	NEEI	MPLPDE . .	PLEEME				347	
NTDB id 1334 RAO RS04870 WP 004918236.1	DTKLGQGR	DTVKEL	IKDNPEI	AEEI	EAKI	REKLQ	AK						343	
NTDB id 1389 A4U84 RS07560 WP 021112712.1	GTKIGQGK	NNAVKWL	KENPEI	ADKLE	QEI	RNTLA	SNPNS	VLKATAS	DSNDES	D	VEEFSE	EEL	372	
NTDB id 1130 NGFG RS03960 WP 003688695.1	GAKIGQGD	NVRVWL	KENPEI	SDEI	DAKIR	ALNGV	EMHI	TEGTQDE	TDGER	PEE			348	
NTDB id 1124 NGFG RS03960 WP 003688695.1	GAKIGQGD	NVRVWL	KENPEI	SDEI	DAKIR	ALNGV	EMHI	TEGTQDE	TDGER	PEE			348	
NTDB id 1123 OK783 RS03845 WP 003688695.1	GAKIGQGD	NVRVWL	KENPEI	SDEI	DAKIR	ALNGV	EMHI	TEGTQDE	TDGER	PEE			348	
NTDB id 1427 RS RS02760 WP 011000510.1	GERIGQGR	DNCR	EFLREN	AELARE	IEIN	KVREHL	CVTPMG	AVTLA .	EEVEED				352	
NTDB id 1165 A1552VC RS01565 WP 000344154.1	GDKIGQGK	ANACKYL	KENPEI	AKTLD	DKKL	REMLLN	PENM	QLIAET	SSAADD	VE	FGAVPE	EEF	354	
NTDB id 1142 GTF74 RS11550 WP 000344154.1	GDKIGQGK	ANACKYL	KENPEI	AKTLD	DKKL	REMLLN	PENM	QLIAET	SSAADD	VE	FGAVPE	EEF	354	
NTDB id 1022 ACIAD RS06390 WP 004925639.1	GNKIGQGK	NNVIRY	LEENPQI	STEIE	AVIRE	QLLT	KASD	QTAA .	HDETEE	EPD	LL . .	ES	349	
NTDB id 1074 ABD1 RS10195 WP 000344167.1	GNKIGQGK	NNVIRY	FEENNQI	AEEI	ERNI	REQLLT	TGTN	GAVQ .	I .	EDEE	EPD	LL . .	LES	349
NTDB id 1205 PSJM300 05545 AFN77183.1	GSKIGQGK	ANAAKY	LEENPEI	GQIEI	QQIR	AKLLV	TSAN	TKATP	VAEDL	LADAD	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 74847 KUH140013 RS04165 WP 000368166.1	...	347
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
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 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