

logo



NTDB id 600 KW2 RS01765 WP 011675413.1	VV	I	D	S	V	A	A	L	V	P	K	A	E	I	D	G	E	I	G	D	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	D	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	T	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	D	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	T	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	D	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	T	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	D	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	T	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	D	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	T	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	D	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	T	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	D	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	T	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	D	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	T	A	I	F	I	N	Q	L	R	E	K	V	G	T	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	T	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	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	T	A	I	F	I	N	Q	L	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	G	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	L	R	E	K	V	G	V	M	.	Y	G	N	P	E	T	T	T	P	G	G	R	A	L	K	F	Y	A	231
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	L	R	M	K	I	G	A	M	G	Y	G	T	P	E	T	T	T	G	G	N	A	L	K	F	Y	A	219	
NTDB id 1214 NCTC11637 00359 SQJ03206.1	V	V	V	D	S	V	A	A	L	T	P	K	A	E	I	D	G	D	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	L	R	M	K	I	G	M	G	Y	G	S	P	E	T	T	T	G	G	N	A	L	K	F	Y	A	221		
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	D	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	L	R	M	K	I	G	M	G	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	D	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	L	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	K	T	N	T	L	V	V	F	I	N	Q	L	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	K	T	N	T	L	V	V	F	I	N	Q	L	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	K	T	N	T	L	V	V	F	I	N	Q	L	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	G	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	L	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	L	M	S	Q	A	M	R	K	L	T	G	N	L	K	Q	S	N	C	M	C	I	F	I	N	Q	L	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	L	M	S	Q	A	M	R	K	L	T	G	N	L	K	Q	S	N	C	M	C	I	F	I	N	Q	L	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 1115353 ABR2091 RS10435 WP 000344169.1	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	L	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	L	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 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	L	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</																																																		

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NTDB id 600 KW2 RS01765 WP 011675413.1	DEKIGQQA	ENAKNYL	KEHQDV	FDEID	HKVRAAH	GLDDSEVA	ETEEE	.TTASKTK	.AKAKKEEK	AVETEE	EIELELED	..	387	
NTDB id 269 KZH43 RS08665 WP 001085462.1	DEKIGQGS	ENAKKYL	AEHPFI	FDEID	KQVRSKF	GLIDGEEV	SEQDTE	.NKKDE	.....	PKKEEA	.VNEEVPL	DLGDEL	382
NTDB id 228 SPD RS09265 WP 001085462.1	DEKIGQGS	ENAKKYL	AEHPFI	FDEID	KQVRSKF	GLIDGEEV	SEQDTE	.NKKDE	.....	PKKEEA	.VNEEVPL	DLGDEL	382
NTDB id 194 SPR RS08825 WP 001085462.1	DEKIGQGS	ENAKKYL	AEHPFI	FDEID	KQVRSKF	GLIDGEEV	SEQDTE	.NKKDE	.....	PKKEEA	.VNEEVPL	DLGDEL	382
NTDB id 159 SP RS09750 WP 001085462.1	DEKIGQGS	ENAKKYL	AEHPFI	FDEID	KQVRSKF	GLIDGEEV	SEQDTE	.NKKDE	.....	PKKEEA	.VNEEVPL	DLGDEL	382
NTDB id 527 SMSK321 RS11065 WP 001085454.1	DEKIGQGS	ENAKKYL	ADNPEV	FAEID	HQVRVQF	GLIDGEE	AAE....	SKKDE	.....	VAQVDS	.VNEEVTL	DLGDEL	378
NTDB id 499 SM12261 RS08315 WP 078228268.1	DEKIGQGS	ENAKKYL	ADNPEI	FDEID	HQVRVQF	GLIDGEE	IAE....	SKKDE	.....	AAQVDS	.VNEEVTL	DLGDEL	378
NTDB id 453 Spy49 1753c ACI62003.1	GEKIGQGS	ENAKRYL	ADHPQL	FDEID	RKVRVKF	GLLEESE	EEESAM	AV.ASE	.....	E.....	TDDLAL	DLDNGI	374
NTDB id 408 SMU RS09530 WP 002262392.1	GEKIGQGS	ENAKKFL	ADNPEI	FDDID	HKVRVQY	GLIEEDN	TEEKQS	.KEK....	.....	ETDEK	.ADKNLV	LELDDTI	379
NTDB id 115 BSU 16940 NP 389576.2	EERLGGC	RENAKQ	FLKENK	DIMLMI	QEQIRE	HYGLDN	NGVVQ	QAEE	.TQEEL	.E..FE	.E.....	.....	348
NTDB id 625 LCA RS02525 WP 011374196.1	SERIGQGS	RENAKNY	LADHED	VEDEV	RLKVR	AAAYG	ISDVPE	EDLPT	TE.DE	.QI.N	.ILPDD	ST....	EE.....	355
NTDB id 1313 DR RS12030 WP 010888966.1	DERIGQCK	EKTIA	YTAER	PEME	QEIRDR	VMAAIR	RAGNAGE	APALAP	APAAPE	AAEA	.....	.....	363
NTDB id 1245 Cj1673c YP 002345041.1	DKKLGQC	RENSKA	FLKENP	EIADEI	TKATQ	NSMGI	EGMIS	GS..E	DEGE	..E	.....	.....	343
NTDB id 1214 NCTC11637 00359 SQJ03206.1	DKKLGQC	RENAKA	LKEDK	ALADEI	TLKIK	ESIGS	NEEI	IMPL	.PDEPL	..EME	.....	.....	347
NTDB id 1211 C694 RS00795 WP 000963128.1	DKKLGQC	RENAKA	LKEDK	ALADEI	TLKIK	ESIGS	NEEI	IMPL	.PDEPL	..EME	.....	.....	347
NTDB id 1334 RAOC RS04870 WP 004918236.1	DTKLGQR	DTVKKEL	IKDNPE	LAELE	EAKIRE	KLQAK	.....	.....	.....	.....	.....	.....	343
NTDB id 1389 A4U84 RS07560 WP 021112712.1	GTKIGQCK	NNAVK	WLKENP	EIADK	LQEIR	NTLAS	NPNSV	LK..A	ATASD	SND	ESDVEE	FSE....	EEL.....	372
NTDB id 1130 NGFG RS03960 WP 003688695.1	GAKIGQCK	DNVRV	WLKENP	EISDEI	DAKIR	ALN	GVEM	HITEG	.TQDET	GERPE	E.....	348
NTDB id 1124 NGFG RS03960 WP 003688695.1	GAKIGQCK	DNVRV	WLKENP	EISDEI	DAKIR	ALN	GVEM	HITEG	.TQDET	GERPE	E.....	348
NTDB id 1123 OK783 RS03845 WP 003688695.1	GAKIGQCK	DNVRV	WLKENP	EISDEI	DAKIR	ALN	GVEM	HITEG	.TQDET	GERPE	E.....	348
NTDB id 1427 RS RS02760 WP 011000510.1	GERIGQGR	DNCRE	FLRENA	EELARE	EENK	VREHL	GVTPM	GAV...T	LAEVEE	ED	.....	.....	352
NTDB id 1165 A1552VC RS01565 WP 000344154.1	GDKIGQCK	KANACK	YLKENP	EIAKTL	DKKLR	EMLLN	PENM	QLI..A	ETSSA	ADD	VEFGAV	PE....	EF.....	354
NTDB id 1142 GTF74 RS11550 WP 000344154.1	GDKIGQCK	KANACK	YLKENP	EIAKTL	DKKLR	EMLLN	PENM	QLI..A	ETSSA	ADD	VEFGAV	PE....	EF.....	354
NTDB id 1115353 ABR2091 RS10435 WP 000344169.1	GNKIGQCK	NNVIRY	FEENTQ	IAEEI	ERNIR	EQLLT	TGTNG	AV..Q	.I.EDEE	EPD	.LLE	S.....	349
NTDB id 1074 ABD1 RS10195 WP 000344167.1	GNKIGQCK	NNVIRY	FEENNQ	IAEEI	ERNIR	EQLLT	TGTNG	AV..Q	.I.EDEE	EPD	.LLE	S.....	349
NTDB id 1022 ACIAD RS06390 WP 004925639.1	GNKIGQCK	NNVIRY	LEENPQ	ISTE	EIAVIR	EQLLT	KASD	QTA..A	.HDETEE	EPD	.LLES	349
NTDB id 1205 PSJM300 05545 AFN77183.1	GSKIGQCK	KANA	AKYLEE	NPEIG	QEIEQ	QIRAK	LLVTS	ANTKA	.TPVAE	DLAD	.AD..I	347
consensus	***!!!	*****	* **	*****	*****	*****	**	**	*					

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	E	I	E	L	E	E
NTDB id 600 KW2 RS01765 WP 011675413.1	387
NTDB id 269 KZH43 RS08665 WP 001085462.1	E	I	E	I	E	388
NTDB id 228 SPD RS09265 WP 001085462.1	E	I	E	I	E	388
NTDB id 194 SPR RS08825 WP 001085462.1	E	I	E	I	E	388
NTDB id 159 SP RS09750 WP 001085462.1	E	I	E	I	E	388
NTDB id 527 SMSK321 RS11065 WP 001085454.1	E	I	E	I	E	384
NTDB id 499 SM12261 RS08315 WP 078228268.1	E	I	E	I	E	384
NTDB id 453 Spy49 1753c ACI62003.1	E	I	E	D	.	378
NTDB id 408 SMU RS09530 WP 002262392.1	E	L	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 1245 Cj1673c YP 002345041.1	.	.	.	.	.	343
NTDB id 1214 NCTC11637 00359 SQJ03206.1	.	.	.	.	.	347
NTDB id 1211 C694 RS00795 WP 000963128.1	.	.	.	.	.	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 1115353 ABR2091 RS10435 WP 000344169.1	.	.	.	.	.	349
NTDB id 1074 ABD1 RS10195 WP 000344167.1	.	.	.	.	.	349
NTDB id 1022 ACIAD RS06390 WP 004925639.1	.	.	.	.	.	349
NTDB id 1205 PSJM300 05545 AFN77183.1	.	.	.	.	.	347
consensus						

non conserved
 similar
 ≥ 50% conserved