



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	H	A	L	D	P	Y	A	K	A	L	G	V	N	I	D	E	L	L	S	Q	P	D	Y	G	E	Q	G	L	I	A	E	K	L	I	T	S	G	A	V	D	L	154			
NTDB id 269 KZH43 RS08665 WP 001085462.1	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	H	A	L	D	P	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	L	153		
NTDB id 228 SPD RS09265 WP 001085462.1	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	H	A	L	D	P	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	L	153		
NTDB id 194 SPR RS08825 WP 001085462.1	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	H	A	L	D	P	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	L	153		
NTDB id 159 SP RS09750 WP 001085462.1	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	H	A	L	D	P	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	L	153		
NTDB id 499 SM12261 RS08315 WP 078228268.1	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	H	A	L	D	P	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	L	153		
NTDB id 527 SMSK321 RS11065 WP 001085454.1	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	H	A	L	D	P	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	L	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	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	L	153		
NTDB id 136388 GBS85147 RS09540 WP 001085741.1	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	H	A	L	D	P	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	L	153		
NTDB id 453 Spy49 1753c ACI62003.1	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	H	A	L	D	P	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	L	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	Q	Q	G	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	I	A	D	A	L	V	S	S	G	A	V	D	L	140	
NTDB id 115 BSU 16940 NP 389576.2	I	V	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	S	Q	P	D	T	G	E	Q	A	L	E	I	A	E	A	L	V	R	S	G	A	V	D	L	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	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	S	Q	P	D	N	G	E	Q	A	L	E	I	M	E	L	L	V	R	S	G	A	T	D	V	152		
NTDB id 1245 Cj1673c YP 002345041.1	I	V	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	L	139
NTDB id 1214 NCTC11637 00359 SQJ03206.1	I	V	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	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 1211 C694 RS00795 WP 000963128.1	I	V	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	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 RAOC 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	G	T	A	A	F	I	D	A	E	H	A	F	D	M	H	Y	A	E	K	L	G	I	N	L	E	L	I	V	S	Q	P	D	N	G	E	Q	A	L	E	I	A	D	S	L	I	T	R	S	G	V	D	L	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	V	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	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	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	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	S	Q	P	D	T	G	E	Q	A	L	E	I	C	D	A	L	A	R	S	G	A	V	D	V	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	S	Q	P	D	T	G	E	Q	A	L	E	I	C	D	A	L	A	R	S	G	A	V	D	V	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	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	V	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	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	I	D	D	L	L	S	Q	P	D	T	G	E	Q	A	L	E	I	T	D	M	L	V	R	S	N	A	V	D	V	139		
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NTDB id 600 KW2 RS01765 WP 011675413.1	DEKIGQQA	AKAKNYL	KEHQDV	FDEID	HKVRAA	HLDDSEVA	ETEEETT	ASKTKAKAK	KEEKAVETE	IELELED	.....	387	
NTDB id 269 KZH43 RS08665 WP 001085462.1	DEKIGQGS	ENAKKYL	AEHPFI	FDEID	KQVRSKF	GLIDGEEV	SEQDTEN	KKDEPK	...KEE	..AVNE	EVPLDLG	DELEIE	385
NTDB id 228 SPD RS09265 WP 001085462.1	DEKIGQGS	ENAKKYL	AEHPFI	FDEID	KQVRSKF	GLIDGEEV	SEQDTEN	KKDEPK	...KEE	..AVNE	EVPLDLG	DELEIE	385
NTDB id 194 SPR RS08825 WP 001085462.1	DEKIGQGS	ENAKKYL	AEHPFI	FDEID	KQVRSKF	GLIDGEEV	SEQDTEN	KKDEPK	...KEE	..AVNE	EVPLDLG	DELEIE	385
NTDB id 159 SP RS09750 WP 001085462.1	DEKIGQGS	ENAKKYL	AEHPFI	FDEID	KQVRSKF	GLIDGEEV	SEQDTEN	KKDEPK	...KEE	..AVNE	EVPLDLG	DELEIE	385
NTDB id 499 SM12261 RS08315 WP 078228268.1	DEKIGQGS	ENAKKYL	ADNPEI	FDEID	HQVRVQ	FGLIDGEE	IAES	...KKDEA	...QVD	..SVNE	EVTLDLG	DELEIE	381
NTDB id 527 SMSK321 RS11065 WP 001085454.1	DEKIGQGS	ENAKKYL	ADNPEI	FAEID	HQVRVQ	FGLIDGEE	AAES	...KKDEVA	...QVD	..SVNE	EVTLDLG	DELEIE	381
NTDB id 408 SMU RS09530 WP 002262392.1	GEKIGQGS	ENAKKFL	ADNPEI	FDDI	HKVVRV	QYGLIEED	NTEEK	QSSKEKET	.....DE	..KADKN	LVLELDD	TIELE	382
NTDB id 136388 GBS85147 RS09540 WP 001085741.1	GEKIGQGS	ENAKKYL	ADNPAI	FDEID	HKVRVHF	GMTEDD	SPVQSEL	VEE	.....K	..NEAD	DLVLDL	DNAIEIE	378
NTDB id 453 Spy49 1753c ACI62003.1	GEKIGQGS	ENAKRYL	ADHPQL	FDEID	RKVRVK	FGLLEESE	EESAMAVA	.....S	..EETD	LALDL	DNGIEIE	377	
NTDB id 625 LCA RS02525 WP 011374196.1	SERIGQGR	ENAKNYL	ADHEDV	EDEV	RLKVR	AAYGISD	VPEEDL	PTTEDE	.QIN	.....ILP	DDSTEE	355	
NTDB id 115 BSU 16940 NP 389576.2	EERLIGQ	GR	ENAKQFL	KENKDI	MLMI	QEQTRE	HYCLD	NNGVV	QQAEET	QEELE	.....FE	.E	348
NTDB id 1313 DR RS12030 WP 010888966.1	DERIGQG	KEKTIAY	IAERP	MEQE	IRDRV	MAAIR	RAGNAGE	APALAP	AAPAA	PEA	.....AEA	363	
NTDB id 1245 Cj1673c YP 002345041.1	DKKLGQ	GR	ENSKAFL	KENPEI	ADEIT	KATQNS	MTIEG	M	.....SG	SEDD	..E	343	
NTDB id 1214 NCTC11637 00359 SQJ03206.1	DKKLGQ	GR	ENAKALL	KEDKAL	ADEIT	LKIKES	IGSNEE	I	.....M	PLPDE	..P	347	
NTDB id 1211 C694 RS00795 WP 000963128.1	DKKLGQ	GR	ENAKALL	KEDKAL	ADEIT	LKIKES	IGSNEE	I	.....M	PLPDE	..P	347	
NTDB id 1334 RAO RS04870 WP 004918236.1	DTKLGQ	GR	DTVKEL	IKDNPEI	AEEI	EAKI	REKLQ	A	.....	343			
NTDB id 1389 A4U84 RS07560 WP 021112712.1	GTKIGQ	GKNN	AVKWL	KENPEI	ADKLE	QEI	RNTL	ASNPNS	.....VL	KATAS	DS	372	
NTDB id 1130 NGFG RS03960 WP 003688695.1	GAKIGQ	GKDN	VVRVWL	KENPEI	SDEI	DAKIR	ALNG	VEMHI	.....TE	GQDET	.....GER	348	
NTDB id 1124 NGFG RS03960 WP 003688695.1	GAKIGQ	GKDN	VVRVWL	KENPEI	SDEI	DAKIR	ALNG	VEMHI	.....TE	GQDET	.....GER	348	
NTDB id 1123 OK783 RS03845 WP 003688695.1	GAKIGQ	GKDN	VVRVWL	KENPEI	SDEI	DAKIR	ALNG	VEMHI	.....TE	GQDET	.....GER	348	
NTDB id 1427 RS RS02760 WP 011000510.1	GERIGQ	GR	DNCR	EFLREN	AELARE	IE	ENKVR	REHL	CVTP	MG	.....AV	TLA	352
NTDB id 1165 A1552VC RS01565 WP 000344154.1	GDKIGQ	GKAN	ACKYL	KENPEI	AKTLD	KKLRE	MLLN	PENM	.....QL	IAET	SSA	354	
NTDB id 1142 GTF74 RS11550 WP 000344154.1	GDKIGQ	GKAN	ACKYL	KENPEI	AKTLD	KKLRE	MLLN	PENM	.....QL	IAET	SSA	354	
NTDB id 1022 ACIAD RS06390 WP 004925639.1	GNKIGQ	GKNN	VIRY	LEENP	QISTE	IEAVI	REQLL	TKASD	.....QT	AA	HDET	349	
NTDB id 1074 ABD1 RS10195 WP 000344167.1	GNKIGQ	GKNN	VIRY	FEENN	QIAE	EIERN	IREQLL	TTGTN	.....G	AVQ	.I	ED	349
NTDB id 1205 PSJM300 05545 AFN77183.1	GSKIGQ	GKAN	AAKY	LEENPEI	GQEIE	QQIR	AKLL	VTSAN	.....TK	ATPVA	ED	347	
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		LEE	
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 408	SMU RS09530 WP 002262392.1	D..	383
NTDB id 136388	GBS85147 RS09540 WP 001085741.1	E..	379
NTDB id 453	Spy49 1753c ACI62003.1	D..	378
NTDB id 625	LCA RS02525 WP 011374196.1	...	355
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 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 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