

logo



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	G	T	A	A	F	I	D	A	E	H	A	L	D	P	Y	A	K	N	L	G	V	N	I	D	E	L	L	S	Q	P	D	T	G	E	Q	A	L	E	I	A	D	A	L	V	S	S	G	A	V	D	I	140		
NTDB id 396531 GH761 RS01480 WP 003766841.1	I	I	E	V	Y	G	P	E	S	S	G	K	T	T	V	A	L	H	A	I	A	E	V	Q	A	Q	G	G	T	A	A	F	I	D	A	E	H	A	L	D	P	Y	A	K	N	L	G	V	N	I	D	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 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	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 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	L	Q	I	A	E	K	L	I	T	S	G	A	V	D	L	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	Y	A	A	A	L	G	V	N	I	D	E	L	L	S	Q	P	D	S	G	E	Q	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	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	Y	A	A	A	L	G	V	N	I	D	E	L	L	S	Q	P	D	S	G	E	Q	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	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	Y	A	A	A	L	G	V	N	I	D	E	L	L	S	Q	P	D	S	G	E	Q	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	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	Y	A	A	A	L	G	V	N	I	D	E	L	L	S	Q	P	D	S	G	E	Q	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	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	Y	A	A	A	L	G	V	N	I	D	E	L	L	S	Q	P	D	S	G	E	Q	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	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	Y	A	A	A	L	G	V	N	I	D	E	L	L	S	Q	P	D	S	G	E	Q	L	E	I	A	G	K	L	I	D	S	G	A	V	D	L	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	Y	A	A	A	L	G	V	N	I	D	E	L	L	A	Q	P	D	S	G	E	Q	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	L	E	I	A	G	K	L	I	D	S	G	A	V	D	L	153			
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	T	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	I	D	V	152	
NTDB id 1245 Cj1673c YP 002345041.1	I	I	E	I	Y	G	P	E	S	S	G	K	T	T	L	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	L	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 RAOC RS04870 WP 004918236.1	I	V	E	I	Y	G	P	E	S	S	G	K	T	T	L	L	H	A	I	A	E	A	Q	K	V	G	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	I	V	S	Q	P	D	N	G	E	Q	A	L	E	I	A	D	S	L	I	R	S	G	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	N	K	T	C	A	F	I	D	A	E	H	A	L	D	P	V	Y	A	R	N	L	G	V	N	T	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	L	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	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	L	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	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	I	D	L	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	I	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	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	L	139		

***!!*!!*!!*!!*

logo

NTDB id 625 LCA RS02525 WP 011374196.1
 NTDB id 396531 GH761 RS01480 WP 003766841.1
 NTDB id 115 BSU 16940 NP 389576.2
 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 453 Spy49 1753c ACI62003.1
 NTDB id 408 SMU RS09530 WP 002262392.1
 NTDB id 1313 DR RS12030 WP 010888966.1
 NTDB id 1245 Cj1673c YP 002345041.1
 NTDB id 1211 C694 RS00795 WP 000963128.1
 NTDB id 1214 NCTC11637 00359 SQJ03206.1
 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
 NTDB id 1165 A1552VC RS01565 WP 000344154.1
 NTDB id 1142 GTF74 RS11550 WP 000344154.1
 NTDB id 1074 ABD1 RS10195 WP 000344167.1
 NTDB id 1022 ACIAD RS06390 WP 004925639.1
 NTDB id 1205 PSJM300 05545 AFN77183.1

consensus



SERIGQGRENAKNYLADHEDVEDEVRLKVR AAYGTS DVP EEDLPTTEDEQINILPDDSTEE..... 355
 EERIGQGRENAKQYLKEHTDIRDEISKRVREEYEIDGTNKEPLD..ENEETLSLLDDE..... 348
 EERLGQGRENAKQFLKENKDIMLMIQE QIREHYGLD NNGV VQQA EETQE EEFEE..... 348
 DEKIGQGA EKAKNYLKEHQDV FDEIDHKVRAAHGL LDDSEVAETE EETTAS KTKAKAKKEEKAVETE EIELELED..... 387
 DEKIGQGS ENAKKYLA EHPEIFDEIDKQVRSKFG LIDGEEVSEQD TENKKDE....PKKEEA..VNEEVPLDLGDELEIE 385
 DEKIGQGS ENAKKYLA EHPEIFDEIDKQVRSKFG LIDGEEVSEQD TENKKDE....PKKEEA..VNEEVPLDLGDELEIE 385
 DEKIGQGS ENAKKYLA EHPEIFDEIDKQVRSKFG LIDGEEVSEQD TENKKDE....PKKEEA..VNEEVPLDLGDELEIE 385
 DEKIGQGS ENAKKYLA EHPEIFDEIDKQVRSKFG LIDGEEVSEQD TENKKDE....PKKEEA..VNEEVPLDLGDELEIE 385
 DEKIGQGS ENAKKYLADNPEIFDEIDHQV RVVQFGL IDGEEIAES....KKDE....AAQVDS..VNEEVTLDLGDELEIE 381
 DEKIGQGS ENAKKYLADNPEVFAEIDHQV RVVQFGL IDGEEAAES....KKDE....VAQVDS..VNEEVTLDLGDELEIE 381
 GEKIGQGS ENAKRYLADHPQLFDEIDRKV RVVKFGL LEESEEEESAMAVASE.....E.....TDDLALDLNGIEIE 377
 GEKIGQGS ENAKKFLADNPEIFDDIDHKV RVVQYGL IEEDNTEEKQSSKEK.....ETDEK..ADKNLVLELDDTIELE 382
 DERIGQG KEKTIAYIA ERP EMEQEIRDRVMAAIRAGNAGEAPALAPAPAAPEAAEA..... 363
 DKKLGQGRENSKAF LKENPEI ADEITKAIQNSMG IEGMI....SGSEDDE..GEE..... 343
 DKKLGQGRENAKALLKEDKALADEITLKI KESIGSNEEI....MPLPDEP..LEEME..... 347
 DKKLGQGRENAKALLKEDKALADEITLKI KESIGSNEEI....MPLPDEP..LEEME..... 347
 DTKLGQGRD TVKELTKDNPELA EEL EAKI REKLQAK..... 343
 GTKIGQGNNAVKWLKENPEIADKLEQEIRNTLASNPN S....VLKATASDSNDES DVEE..FSEEEL..... 372
 GAKIGQKDNV RVWLKENPEISDEIDAKIRALNGVEMHI....TEGTQDETD.....GE..RPEE..... 348
 GAKIGQKDNV RVWLKENPEISDEIDAKIRALNGVEMHI....TEGTQDETD.....GE..RPEE..... 348
 GAKIGQKDNV RVWLKENPEISDEIDAKIRALNGVEMHI....TEGTQDETD.....GE..RPEE..... 348
 GERIGQGRDNCREFLRENAELAREIENKVR EHLGVTPMG....AV.TLAE EVEED..... 352
 GDKIGQK KANACKY LKENPEIAKTL DKKLREMLLN PENM....QLIAETSSAADDVEFGA..VPEEF..... 354
 GDKIGQK KANACKY LKENPEIAKTL DKKLREMLLN PENM....QLIAETSSAADDVEFGA..VPEEF..... 354
 GNKIGQKNNVIRYFEENNQIA E E IERN IREQLLTTGTN....GAVQ.I.EDEEEPD..L..LLES..... 349
 GNKIGQKNNVIRYLEENPQISTEIEAV IREQLLTKASD....QTAA.HDETEEEP D..L..LES..... 349
 GSKIGQK KANAACKY LEENPEIGQEIEQQ IIRAKLLVTSAN....TKATPVAEDLADAD..I..... 347

!!!** ** * *** ***** ** **

logo

NTDB id 625 LCA RS02525 WP 011374196.1	...	355
NTDB id 396531 GH761 RS01480 WP 003766841.1	...	348
NTDB id 115 BSU 16940 NP 389576.2	...	348
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 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 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