







logo



NTDB id 41540 PUV RS00030 WP 006340700.1	SVRLD	IRRTAGIKG...	PDNSE	VGNRVK	VVVKNKVAPPF	RS	AEFD	DIL	FN	EGIS	R	TGAV	I	DL	GT	EY	Q	I	DK	K	GAW	F	SY	Q	299																																																			
NTDB id 600 KW2 RS01765 WP 011675413.1	SVRLD	VRG	STKIEEGS	.GDNKT	Q	I	G	K	I	T	K	I	K	V	V	K	N	K	V	A	P	P	F	K	V	A	L	V	D	I	M	F	G	E	G	I	S	T	G	E	L	L	N	I	A	V	E	E	G	I	I	K	K	S	G	A	W	F	A	Y	N	312														
NTDB id 269 KZH43 RS08665 WP 001085462.1	SVRLD	VRG	NTQIKGTG	.DQK	E	T	N	V	G	K	E	T	K	I	K	V	V	K	N	K	V	A	P	P	F	K	E	A	V	V	E	I	M	Y	G	E	G	I	S	K	T	G	E	L	L	K	I	A	S	D	L	I	I	K	K	A	G	A	W	Y	S	Y	K	311												
NTDB id 228 SPD RS09265 WP 001085462.1	SVRLD	VRG	NTQIKGTG	.DQK	E	T	N	V	G	K	E	T	K	I	K	V	V	K	N	K	V	A	P	P	F	K	E	A	V	V	E	I	M	Y	G	E	G	I	S	K	T	G	E	L	L	K	I	A	S	D	L	I	I	K	K	A	G	A	W	Y	S	Y	K	311												
NTDB id 194 SPR RS08825 WP 001085462.1	SVRLD	VRG	NTQIKGTG	.DQK	E	T	N	V	G	K	E	T	K	I	K	V	V	K	N	K	V	A	P	P	F	K	E	A	V	V	E	I	M	Y	G	E	G	I	S	K	T	G	E	L	L	K	I	A	S	D	L	I	I	K	K	A	G	A	W	Y	S	Y	K	311												
NTDB id 159 SP RS09750 WP 001085462.1	SVRLD	VRG	NTQIKGTG	.DQK	E	T	N	V	G	K	E	T	K	I	K	V	V	K	N	K	V	A	P	P	F	K	E	A	V	V	E	I	M	Y	G	E	G	I	S	K	T	G	E	L	L	K	I	A	S	D	L	I	I	K	K	A	G	A	W	Y	S	Y	K	311												
NTDB id 499 SM12261 RS08315 WP 078228268.1	SVRLD	VRG	STQIKGTG	.DQK	D	T	N	V	G	K	E	T	K	I	K	V	V	K	N	K	V	A	P	P	F	K	E	A	F	V	E	I	M	Y	G	E	G	I	S	K	T	G	E	L	L	K	I	A	S	D	L	I	I	K	K	A	G	A	W	Y	S	Y	K	311												
NTDB id 527 SMSK321 RS11065 WP 001085454.1	SVRLD	VRG	STQIKGTG	.DQK	D	T	N	V	G	K	E	T	K	I	K	V	V	K	N	K	V	A	P	P	F	K	E	A	F	V	E	I	M	Y	G	E	G	I	S	K	T	G	E	L	L	K	I	A	S	D	L	I	I	K	K	A	G	A	W	Y	S	Y	K	311												
NTDB id 453 Spy49 1753c ACI62003.1	SVRLD	VRG	TQIKGTG	.DQK	D	S	S	I	G	K	E	T	K	I	K	V	V	K	N	K	V	A	P	P	F	K	E	A	F	V	E	I	M	Y	G	E	G	I	S	R	T	G	E	L	V	K	I	A	S	D	L	I	I	K	K	A	G	A	W	F	S	Y	N	311												
NTDB id 408 SMU RS09530 WP 002262392.1	SVRLD	VRG	NTQIKGTG	.EQK	D	S	N	I	G	K	E	T	K	I	K	V	V	K	N	K	V	A	P	P	F	K	E	A	F	V	E	I	T	Y	G	E	G	I	S	R	T	G	E	L	V	K	I	A	S	D	L	G	I	I	K	K	A	G	A	W	Y	S	Y	N	311											
NTDB id 115 BSU 16940 NP 389576.2	SVRL	E	V	R	R	A	E	Q	L	K	Q	G	N	. . . . .	D	V	M	G	N	K	T	K	I	K	V	V	K	N	K	V	A	P	P	F	R	T	A	E	V	D	I	M	Y	G	E	G	I	S	K	E	G	E	I	D	L	G	T	E	L	D	I	V	Q	K	S	G	S	W	S	Y	E	292				
NTDB id 625 LCA RS02525 WP 011374196.1	T	V	R	L	E	V	R	R	A	E	T	I	K	N	G	T	. . . . .	D	M	I	G	N	R	A	R	I	K	V	V	K	N	K	V	A	P	P	F	K	V	A	E	V	D	I	M	Y	G	Q	G	I	S	R	T	G	E	L	V	D	M	A	V	E	K	D	I	I	N	K	S	G	S	W	S	Y	G	294
NTDB id 1313 DR RS12030 WP 010888966.1	SVRLD	V	R	K	I	G	Q	. . . . .	P	T	K	V	G	N	D	A	V	A	N	T	V	K	I	K	T	V	K	N	K	V	A	P	P	F	K	E	V	E	L	A	L	V	Y	G	K	G	F	D	Q	L	S	D	L	V	G	L	A	A	D	M	I	I	K	K	A	G	S	F	Y	S	Y	G	307			
NTDB id 1245 Cj1673c YP 002345041.1	SVRLD	V	R	K	V	A	T	. . . . .	L	K	Q	N	E	E	P	I	G	N	R	V	K	V	V	K	N	K	V	A	P	P	F	R	Q	A	E	F	D	V	M	F	G	E	L	S	R	E	G	E	L	I	D	Y	G	V	K	L	D	I	V	D	K	S	G	A	W	F	S	Y	K	294						
NTDB id 1214 NCTC11637 00359 SQJ03206.1	SVR	I	D	I	R	R	I	A	. . . . .	L	K	Q	N	E	Q	H	I	G	N	R	A	K	A	K	V	V	K	N	K	V	A	P	P	F	R	E	A	E	F	D	I	M	F	G	E	G	I	S	K	E	G	E	I	D	Y	G	V	K	L	D	I	V	D	K	S	G	A	W	L	S	Y	Q	296			
NTDB id 1211 C694 RS00795 WP 000963128.1	SVR	I	D	I	R	R	I	A	. . . . .	L	K	Q	N	E	Q	H	I	G	N	R	A	K	A	K	V	V	K	N	K	V	A	P	P	F	R	E	A	E	F	D	I	M	F	G	E	G	I	S	K	E	G	E	I	D	Y	G	V	K	L	D	I	V	D	K	S	G	A	W	L	S	Y	Q	296			
NTDB id 1334 RAOC RS04870 WP 004918236.1	SVR	I	D	I	R	R	S	L	S	D	T	G	K	I	K	D	S	G	E	V	I	G	N	R	T	K	V	V	K	N	K	V	A	P	P	F	K	S	A	E	F	D	I	M	Y	G	E	G	V	S	K	V	G	E	I	L	D	V	A	T	D	L	D	I	I	Q	K	S	G	S	W	F	S	Y	Q	307
NTDB id 1389 A4U84 RS07560 WP 021112712.1	SVRLD	I	R	R	C	G	V	. . . . .	V	K	D	G	E	I	I	G	S	E	T	K	V	V	K	N	K	V	A	P	P	F	R	E	V	Q	F	D	I	M	Y	G	E	G	I	S	R	M	N	E	L	L	I	L	A	E	A	N	G	F	I	K	K	S	G	A	W	F	S	Y	D	310						
NTDB id 1130 NGFG RS03960 WP 003688695.1	SVRLD	I	R	R	T	G	S	. . . . .	I	K	K	G	E	E	V	L	G	N	E	T	R	V	K	V	I	K	N	K	V	A	P	P	F	R	Q	A	E	F	D	I	L	Y	G	E	G	I	S	W	E	G	E	L	I	D	I	G	V	K	N	D	I	I	N	K	S	G	A	W	Y	S	N	294				
NTDB id 1124 NGFG RS03960 WP 003688695.1	SVRLD	I	R	R	T	G	S	. . . . .	I	K	K	G	E	E	V	L	G	N	E	T	R	V	K	V	I	K	N	K	V	A	P	P	F	R	Q	A	E	F	D	I	L	Y	G	E	G	I	S	W	E	G	E	L	I	D	I	G	V	K	N	D	I	I	N	K	S	G	A	W	Y	S	N	294				
NTDB id 1123 OK783 RS03845 WP 003688695.1	SVRLD	I	R	R	T	G	S	. . . . .	I	K	K	G	E	E	V	L	G	N	E	T	R	V	K	V	I	K	N	K	V	A	P	P	F	R	Q	A	E	F	D	I	L	Y	G	E	G	I	S	W	E	G	E	L	I	D	I	G	V	K	N	D	I	I	N	K	S	G	A	W	Y	S	N	294				
NTDB id 1427 RS RS02760 WP 011000510.1	SVRLD	I	R	R	I	G	S	. . . . .	I	K	K	G	D	E	V	V	G	N	E	T	K	V	V	K	N	K	V	A	P	P	F	R	E	A	I	F	D	I	L	Y	G	A	G	V	S	R	E	G	E	I	D	L	G	V	E	A	K	V	V	E	K	S	G	A	W	Y	S	N	302							
NTDB id 1165 A1552VC RS01565 WP 000344154.1	SVRLD	I	R	R	T	G	A	. . . . .	I	K	E	G	E	E	V	V	G	N	E	T	R	I	K	V	V	K	N	K	I	A	A	P	F	K	E	A	N	T	Q	I	M	Y	G	Q	G	F	N	R	E	G	E	L	I	D	L	G	V	K	H	K	M	V	E	K	S	G	A	W	Y	S	N	293				
NTDB id 1142 GTF74 RS11550 WP 000344154.1	SVRLD	I	R	R	T	G	A	. . . . .	I	K	E	G	E	E	V	V	G	N	E	T	R	I	K	V	V	K	N	K	I	A	A	P	F	K	E	A	N	T	Q	I	M	Y	G	Q	G	F	N	R	E	G	E	L	I	D	L	G	V	K	H	K	M	V	E	K	S	G	A	W	Y	S	N	293				
NTDB id 1205 PSJM300 05545 AFN77183.1	SVRLD	I	R	R	T	G	A	. . . . .	V	K	E	G	D	E	V	V	G	S	E	T	R	V	K	V	V	K	N	K	V	A	P	P	F	R	Q	A	E	F	Q	I	L	Y	G	K	G	I	Y	R	N	G	E	I	D	L	G	V	Q	Q	L	V	E	K	S	G	A	W	Y	A	Y	K	293					
NTDB id 1022 ACIAD RS06390 WP 004925639.1	SVRLD	I	R	R	I	G	Q	. . . . .	V	K	E	G	D	E	I	I	G	S	E	T	K	V	V	K	N	K	M	A	P	P	F	R	E	A	I	F	Q	I	L	Y	G	K	G	V	N	Q	L	G	E	L	V	D	L	A	V	Q	Q	N	I	V	Q	K	A	G	A	W	Y	S	Y	Q	293					
NTDB id 1074 ABD1 RS10195 WP 000344167.1	SVRLD	I	R	R	I	G	Q	. . . . .	V	K	E	G	D	E	I	I	G	S	E	T	K	V																																																						

logo



NTDB id 41540 PUV RS00030 WP 006340700.1	GQRIGQGREA VRDELKTNPKILDEIEQLIMQKCKDGLATTSLKSAHV.....DADEKELVEV.....	357
NTDB id 600 KW2 RS01765 WP 011675413.1	DEKIGQGAEKAKNYLKEHQDVFEIDHKVRAAHGLDDSEVAETEETTASKTKAKAKKEEKAVETEEIELELED....	387
NTDB id 269 KZH43 RS08665 WP 001085462.1	DEKIGQGS ENAKKYLA EHPEIFDEIDKQVRSKFG LIDGEEVSEQDTENKKDE...PKKEEA..VNEEVPLDLGDELEIE	385
NTDB id 228 SPD RS09265 WP 001085462.1	DEKIGQGS ENAKKYLA EHPEIFDEIDKQVRSKFG LIDGEEVSEQDTENKKDE...PKKEEA..VNEEVPLDLGDELEIE	385
NTDB id 194 SPR RS08825 WP 001085462.1	DEKIGQGS ENAKKYLA EHPEIFDEIDKQVRSKFG LIDGEEVSEQDTENKKDE...PKKEEA..VNEEVPLDLGDELEIE	385
NTDB id 159 SP RS09750 WP 001085462.1	DEKIGQGS ENAKKYLA EHPEIFDEIDKQVRSKFG LIDGEEVSEQDTENKKDE...PKKEEA..VNEEVPLDLGDELEIE	385
NTDB id 499 SM12261 RS08315 WP 078228268.1	DEKIGQGS ENAKKYLA DNPEIFDEIDHQVRVQFGLIDGEEIAES...KKDE...AAQVDS..VNEEVTLDLGDLEIE	381
NTDB id 527 SMSK321 RS11065 WP 001085454.1	DEKIGQGS ENAKKYLA DNPEVFAEIDHQVRVQFGLIDGEEAAES...KKDE...VAQVDS..VNEEVTLDLGDLEIE	381
NTDB id 453 Spy49 1753c ACI62003.1	GEKIGQGS ENAKRYLA DHPQLFDEIDRQVRVKFGLLEEESEESAMAVASE.....E.....TDDLALDLNGIEIE	377
NTDB id 408 SMU RS09530 WP 002262392.1	GEKIGQGS ENAKKFLADNPEIFDDIDHKVVRVQYGLIEEDNTEEKQSSKEK.....ETDEK..ADKNLVLELDDTIELE	382
NTDB id 115 BSU 16940 NP 389576.2	EERLGQGR ENAKQFLKENKDIMLMIQE QIREHYGLDNNGVVQQQAETQEEL.EFE.E.....	348
NTDB id 625 LCA RS02525 WP 011374196.1	SERIGQGR ENAKNYLA DHEDVEDEVRLKVR AAYGTS DVPPEEDLPTTEDE.QI.NILPD DST.....EE.....	355
NTDB id 1313 DR RS12030 WP 010888966.1	DERIGQG KEKTIAYIA ERPMEQEIRDRVMAAIRAGNAGEAPALAPAPAAPEAAE..A.....	363
NTDB id 1245 Cj1673c YP 002345041.1	DKKLGQGR ENSKAFLKENPEI ADEITKAIQNSMG IEGMI....SGSEDDE..GE..E.....	343
NTDB id 1214 NCTC11637 00359 SQJ03206.1	DKKLGQGR ENAKALLKEDKAL ADEITLTKESIGSNEEI....MPLPDEP..LE..EME.....	347
NTDB id 1211 C694 RS00795 WP 000963128.1	DKKLGQGR ENAKALLKEDKAL ADEITLTKESIGSNEEI....MPLPDEP..LE..EME.....	347
NTDB id 1334 RAOC RS04870 WP 004918236.1	DTKLGQGR DTVKELTKDNPELA EELAK IREKLQAK.....	343
NTDB id 1389 A4U84 RS07560 WP 021112712.1	GTKIGQGN NNAVKWLKENPEIADKLEQEIRNTLASNPN S....VLKATASDSND..ESDVVEEFSEEL.....	372
NTDB id 1130 NGFG RS03960 WP 003688695.1	GAKIGQGD NVRVWLKENPEISDEIDAKIRALNGVEMHI....TEGT.....Q..DET DGERPEE.....	348
NTDB id 1124 NGFG RS03960 WP 003688695.1	GAKIGQGD NVRVWLKENPEISDEIDAKIRALNGVEMHI....TEGT.....Q..DET DGERPEE.....	348
NTDB id 1123 OK783 RS03845 WP 003688695.1	GAKIGQGD NVRVWLKENPEISDEIDAKIRALNGVEMHI....TEGT.....Q..DET DGERPEE.....	348
NTDB id 1427 RS RS02760 WP 011000510.1	GERIGQGR D NCREFLRENAELAREIENKVR EHLGVTPMG....AV.TLAE EVEE..D.....	352
NTDB id 1165 A1552VC RS01565 WP 000344154.1	GDKIGQGN ANACKY LKENPEIAKTL DKKLREMLLN PENM....QLIAETSSAAD..DVEFGAVPEEF.....	354
NTDB id 1142 GTF74 RS11550 WP 000344154.1	GDKIGQGN ANACKY LKENPEIAKTL DKKLREMLLN PENM....QLIAETSSAAD..DVEFGAVPEEF.....	354
NTDB id 1205 PSJM300 05545 AFN77183.1	GSKIGQGN ANAAKYLEENPEIG EIEQQ IRAKLLVTSAN....TKATPVAEDLA..DADI.....	347
NTDB id 1022 ACIAD RS06390 WP 004925639.1	GNKIGQGN NVIRYLEENPQISTEIEAV IREQLLTKASD....QTAA.HDETEE..EPDLL..ES.....	349
NTDB id 1074 ABD1 RS10195 WP 000344167.1	GNKIGQGN NVIRYFEENNQIAE EIERN IREQLLTTGTN....GAVQ.I.EDEE..EPDLL..LES.....	349
consensus	***!!!***** ** ***** ***** ** ** *	

logo

NTDB id 41540 PUV RS00030 WP 006340700.1	...	357
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 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 1205 PSJM300 05545 AFN77183.1	...	347
NTDB id 1022 ACIAD RS06390 WP 004925639.1	...	349
NTDB id 1074 ABD1 RS10195 WP 000344167.1	...	349

consensus

 non conserved  
 similar  
 ≥ 50% conserved