

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	E	Y	A	K	A	L	G	V	N	I	D	E	L	L	S	Q	P	D	Y	G	E	Q	G	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	A	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	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	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	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	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	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	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	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	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	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	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	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	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	A	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 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	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 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	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 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	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	I	E	I	Y	G	P	E	S	S	G	K	T	T	L	T	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	S	Q	P	D	F	G	E	Q	A	L	E	I	V	E	T	T	A	R	S	G	A	V	D	L	139	
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	S	Q	P	D	T	G	E	Q	A	L	E	I	L	E	T	I	T	R	S	G	I	D	L	141	
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	S	Q	P	D	T	G	E	Q	A	L	E	I	L	E	T	I	T	R	S	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	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	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	S	L	I	A	A	Q	A	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	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	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	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	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	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 140573 vpachn25 RS12955 WP 005478550.1	I	V	E	I	Y	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	L	G	V	D	I	D	A	L	L	S	Q	P	D	T	G	E	Q	A	L	E	I	C	D	A	L	A	R	S	G	A	T	D	V	139	
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	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	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	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	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	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		
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	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	I	E	I	Y	G	P	E	S	S	G	K	T	T	M	T	L	Q	A	I	A	Q	C	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	
consensus	*	*	!	*	!	!	!	*	!	!	!	*	!	*	!	*	!	*</																																																														

logo



NTDB id 600 KW2 RS01765 WP 011675413.1	DEKIGQQA	ENAKNYL	KEHQDVF	DEIDHKV	RAAHG	LDDSEVA	EETEEETT	ASKTKAKAK	KEEKAVET	EEIELELED	. . . . .	387	
NTDB id 269 KZH43 RS08665 WP 001085462.1	DEKIGQGS	ENAKKYL	AEHPFI	FDEIDKQV	RSKFG	LIDGEEV	SEQDTENK	KDE. . . .	PKKEEA	. . VNEEV	PLDLGDELEIE	385		
NTDB id 228 SPD RS09265 WP 001085462.1	DEKIGQGS	ENAKKYL	AEHPFI	FDEIDKQV	RSKFG	LIDGEEV	SEQDTENK	KDE. . . .	PKKEEA	. . VNEEV	PLDLGDELEIE	385		
NTDB id 194 SPR RS08825 WP 001085462.1	DEKIGQGS	ENAKKYL	AEHPFI	FDEIDKQV	RSKFG	LIDGEEV	SEQDTENK	KDE. . . .	PKKEEA	. . VNEEV	PLDLGDELEIE	385		
NTDB id 159 SP RS09750 WP 001085462.1	DEKIGQGS	ENAKKYL	AEHPFI	FDEIDKQV	RSKFG	LIDGEEV	SEQDTENK	KDE. . . .	PKKEEA	. . VNEEV	PLDLGDELEIE	385		
NTDB id 499 SM12261 RS08315 WP 078228268.1	DEKIGQGS	ENAKKYL	ADNPEI	FDEIDHQV	RQVFG	LIDGEEI	AES. . . .	KKDE. . . .	AAQVDS	. . VNEEV	TLDLGDELEIE	381		
NTDB id 527 SMSK321 RS11065 WP 001085454.1	DEKIGQGS	ENAKKYL	ADNPEV	FAEIDHQV	RQVFG	LIDGEEA	AES. . . .	KKDE. . . .	VAQVDS	. . VNEEV	TLDLGDELEIE	381		
NTDB id 453 Spy49 1753c ACI62003.1	GEKIGQGS	ENAKRYL	ADHPQL	FDEIDRKV	RVKFG	LEESEEE	SAMAVASE	. . . . .	E. . . . .	. . . . .	TDDLALDL	NGIEIE	377
NTDB id 408 SMU RS09530 WP 002262392.1	GEKIGQGS	ENAKKFL	ADNPEI	FDDIDHKV	RQVYGL	IEEDNTE	EKQSSKEK	. . . . .	ETDEK	. . . . .	ADKNLVLE	LDDTIELE	382
NTDB id 115 BSU 16940 NP 389576.2	EERLGGC	RENAKQ	FLKENK	DIMLMI	QEQIRE	HYGLD	NGVVQQ	QAEETQEEL	.EFE.E	. . . . .	. . . . .	. . . . .	348
NTDB id 625 LCA RS02525 WP 011374196.1	SERIGQGS	RENAKNYL	ADHEDVE	DEVRLK	VRAAYG	ISDVPEE	DLPTTEDE	.QI.NIL	PDDST	. . . . .	.EE. . . . .	. . . . .	355
NTDB id 1313 DR RS12030 WP 010888966.1	DERIGQCK	EKTIA	YTAERF	EMEQEIR	DRVM	AAIRAG	NAGEAP	ALAPAP	AAPEAAEA	. . . . .	. . . . .	. . . . .	363
NTDB id 1245 Cj1673c YP 002345041.1	DKKLGQC	RENSK	AFLEN	PEIAD	EITKAT	IQNSM	TEGMIS	. . . . .	GSED	. . . . .	.DEGEE	. . . . .	343
NTDB id 1214 NCTC11637 00359 SQJ03206.1	DKKLGQC	RENAK	KALLK	EDKAL	ADEITL	KIKES	GSNEEIM	. . . . .	PLPD	. . . . .	.EPLEE	.ME.	347
NTDB id 1211 C694 RS00795 WP 000963128.1	DKKLGQC	RENAK	KALLK	EDKAL	ADEITL	KIKES	GSNEEIM	. . . . .	PLPD	. . . . .	.EPLEE	.ME.	347
NTDB id 1334 RAOC RS04870 WP 004918236.1	DTKLGQR	DTVKEL	IKDNPE	LAELE	EAKIRE	EKLQAK	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	. . . . .	343
NTDB id 1389 A4U84 RS07560 WP 021112712.1	GTKIGQCK	NNAVK	WLKEN	PEIAD	KLEQEI	RNTLA	SNPNSV	LKATAS	DSNDES	DVEE	.FSEEE	L.	372
NTDB id 1130 NGFG RS03960 WP 003688695.1	GAKIGQCK	DNVRV	WLKEN	PEIS	DEIDAKI	RALN	GVEMHIT	E.	GTQDET	DGE. .RPEE	348
NTDB id 1124 NGFG RS03960 WP 003688695.1	GAKIGQCK	DNVRV	WLKEN	PEIS	DEIDAKI	RALN	GVEMHIT	E.	GTQDET	DGE. .RPEE	348
NTDB id 1123 OK783 RS03845 WP 003688695.1	GAKIGQCK	DNVRV	WLKEN	PEIS	DEIDAKI	RALN	GVEMHIT	E.	GTQDET	DGE. .RPEE	348
NTDB id 1427 RS RS02760 WP 011000510.1	GERIGQGR	DNCRE	FLRENA	EELARE	EENK	VREHL	GVTPMGA	. . . . .	VTL.AEE	VEED	. . . . .	. . . . .	352
NTDB id 140573 vpachn25 RS12955 WP 005478550.1	GDKIGQCK	KANAC	NYLREH	PEIAK	TDTKL	REMLL	SQAQPE	APAAGE	KPEQEE	EEF	347
NTDB id 1165 A1552VC RS01565 WP 000344154.1	GDKIGQCK	KANACK	YLKEN	PEIAK	TDKKL	REMLL	NPENMQ	LIAET	SSAADD	VEFGA	. .VPEEF	354
NTDB id 1142 GTF74 RS11550 WP 000344154.1	GDKIGQCK	KANACK	YLKEN	PEIAK	TDKKL	REMLL	NPENMQ	LIAET	SSAADD	VEFGA	. .VPEEF	354
NTDB id 1205 PSJM300 05545 AFN77183.1	GSKIGQCK	KANAK	YLEEN	PEIGQ	EIEQQI	RAKLL	TSANT	KATP	VAEDL	LADADI	347
NTDB id 1022 ACIAD RS06390 WP 004925639.1	GNKIGQCK	KNNVIR	YLEEN	PQISTE	EIAVIRE	QLLTK	ASDQ	TAA.H	DETEE	EPDLLES	349
NTDB id 1074 ABD1 RS10195 WP 000344167.1	GNKIGQCK	KNNVIR	YFEEN	QIAE	EIERN	IREQLL	TGTNG	AVQ.I	.EDEE	EPDLLLES	349
consensus	***!!	*****	* * *	***	*****	* * *	*							

logo

	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 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 140573 vpachn25 RS12955 WP 005478550.1	...	347
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