

logo

NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1045969 AB2Q53 RS07595 WP 003732286.1
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



60
58
58
74
73
73
73
73
73
73
73
73
73
72
59
61
61
68
76
60
60
60
68
59
59
59
59
59

```

NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1045969 AB2Q53 RS07595 WP 003732286.1
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 RA0C 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 PSJ3M300 05545 AFN77183.1

```

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	G	G	T	A	A	Y	I	D	A	E	N	M	D	P	K	Y	A	T	A	L	G	V	N	I	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	I
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	G	G	T	A	A	Y	I	D	A	E	N	M	D	P	K	Y	A	T	A	L	G	V	N	I	D	L	L	S	Q	P	D	T	G	E	Q	G	L	E	I	A	E	A	L	V	R	S	G	A	V	D	I
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	G	G	T	A	A	Y	I	D	A	E	N	M	D	P	K	Y	A	T	A	L	G	V	N	I	D	L	L	S	Q	P	D	T	G	E	Q	G	L	E	I	A	E	A	L	V	R	S	G	A	V	D	I
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	G	G	T	A	A	Y	I	D	A	E	N	M	D	P	K	Y	A	T	A	L	G	V	N	I	D	L	L	S	Q	P	D	T	G	E	Q	G	L	E	I	A	E	K	L	I	T	S	G	A	V	D	I
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	G	G	T	A	A	Y	I	D	A	E	N	M	D	P	K	Y	A	T	A	L	G	V	N	I	D	L	L	S	Q	P	D	T	G	E	Q	G	L	E	I	A	G	K	L	I	D	S	G	A	V	D	I
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	G	G	T	A	A	Y	I	D	A	E	N	M	D	P	K	Y	A	T	A	L	G	V	N	I	D	L	L	S	Q	P	D	T	G	E	Q	G	L	E	I	A	G	K	L	I	D	S	G	A	V	D	I
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	G	G	T	A	A	Y	I	D	A	E	N	M	D	P	K	Y	A	T	A	L	G	V	N	I	D	L	L	S	Q	P	D	T	G	E	Q	G	L	E	I	A	G	K	L	I	D	S	G	A	V	D	I
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	G	G	T	A	A	Y	I	D	A	E	N	M	D	P	K	Y	A	T	A	L	G	V	N	I	D	L	L	S	Q	P	D	T	G	E	Q	G	L	E	I	A	G	K	L	I	D	S	G	A	V	D	I
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	G	G	T	A	A	Y	I	D	A	E	N	M	D	P	K	Y	A	T	A	L	G	V	N	I	D	L	L	S	Q	P	D	T	G	E	Q	G	L	E	I	A	G	K	L	I	D	S	G	A	V	D	I
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	G	G	T	A	A	Y	I	D	A	E	N	M	D	P	K	Y	A	T	A	L	G	V	N	I	D	L	L	S	Q	P	D	T	G	E	Q	G	L	E	I	A	G	K	L	I	D	S	G	A	V	D	I
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	G	G	T	A	A	Y	I	D																																											

```

NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1045969 AB2Q53 RS07595 WP 003732286.1
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 SQ0J3206.1
NTDB id 1334 RA0C 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 PSJ3M300 05545 AFN77183.1

```

Sequence	Position
VVVDLSVAALVPRAEIEGEMGD ^{ALM} SHVGLQAR ^{LM} MSQAL ^{LM} RKL ^{LM} SGTINKTKTIAIFINQIREKVGVM.FGNPEVTPGGRALKFY ^S	219
LVIDSVAALVPRAEIEGEMGD ^{ALM} SHVGLQAR ^{LM} MSQAL ^{LM} RKL ^{LM} SGVINKSKTIAIFINQIREKVGVM.FGNPEITPGGRALKFY ^S	217
VVVDLSVAALVPRKAEIEGDMGDSHVGLQAR ^{LM} MSQAL ^{LM} RKL ^{LM} SGAINKSKTIAIFINQIREKVGVM.FGNPETTPGGRALKFY ^S	217
VVIDSVAALVPRKAEIDG ^{ET} IGDSSVGLQAR ^{LM} MSQAM ^{LM} RKL ^{LM} AGHINKTKTIAIFINQIREKVGVM.FGSPETTPGGRALKFYA	233
VVVDLSVAALVPRAEIDGDI ^{ET} GD ^{ET} SHVGLQAR ^{LM} MSQAM ^{LM} RKL ^{LM} GASINKTKTIAIFINQIREKVGVM.FGNPETTPGGRALKFYA	232
VVVDLSVAALVPRAEIDGDI ^{ET} GD ^{ET} SHVGLQAR ^{LM} MSQAM ^{LM} RKL ^{LM} GASINKTKTIAIFINQIREKVGVM.FGNPETTPGGRALKFYA	232
VVVDLSVAALVPRAEIDGDI ^{ET} GD ^{ET} SHVGLQAR ^{LM} MSQAM ^{LM} RKL ^{LM} GASINKTKTIAIFINQIREKVGVM.FGNPETTPGGRALKFYA	232
VVVDLSVAALVPRAEIDGDI ^{ET} GD ^{ET} SHVGLQAR ^{LM} MSQAM ^{LM} RKL ^{LM} GASINKTKTIAIFINQIREKVGVM.FGNPETTPGGRALKFYA	232
VVVDLSVAALVPRAEIDGDI ^{ET} GD ^{ET} SHVGLQAR ^{LM} MSQAM ^{LM} RKL ^{LM} GASINKTKTIAIFINQIREKVGVM.FGNPETTPGGRALKFYA	232
VVVDLSVAALVPRAEIDGDI ^{ET} GD ^{ET} SHVGLQAR ^{LM} MSQAM ^{LM} RKL ^{LM} GASINKTKTIAIFINQIREKVGVM.FGNPETTPGGRALKFYA	232
VVVDLSVAALVPRAEIDGDI ^{ET} GD ^{ET} SHVGLQAR ^{LM} MSQAM ^{LM} RKL ^{LM} GASINKTKTIAIFINQIREKVGVM.FGNPETTPGGRALKFYA	232
VVVDLSVAALVPRAEIDGDI ^{ET} GD ^{ET} SHVGLQAR ^{LM} MSQAM ^{LM} RKL ^{LM} GASINKTKTIAIFINQIREKVGVM.FGNPETTPGGRALKFYA	232
VVVDLSVAALVPRAEIDGDI ^{ET} GD ^{ET} SHVGLQAR ^{LM} MSQAM ^{LM} RKL ^{LM} GASINKTKTIAIFINQIREKVGVM.FGNPETTPGGRALKFYA	232
VVVDLSVAALVPRAEIDGDI ^{ET} GD ^{ET} SHVGLQAR ^{LM} MSQAM ^{LM} RKL ^{LM} SASINKTKTIAIFINQIREKVGIM.FGNPETTPGGRALKFY ^S	232
VVVDLSVAALVTPRAEIEGDMGDS ^{LM} LPGLQAR ^{LM} MSQAL ^{LM} RKL ^{LM} TAISKTGTAAIFINQIREKVGVM.YGNPETTPGGRALKFYA	231
IVVDLSVAALVTPKAEIEGDMGD ^Q HVGLQAR ^{LM} MSQAL ^{LM} RKL ^{LM} TGIVHKMNTTVIFINQIRMKIGAMGYGTPETTTGGNALKFYA	219
VVVDLSVAALVTPKAEIDGDMGD ^Q HVGLQAR ^{LM} MSH ^{AL} LRKITGV ^{LHKMNT} TLIFINQIRMKIGMMGYGSPETTTGGNALKFYA	221
VVVDLSVAALVTPKAEIDGDMGD ^Q HVGLQAR ^{LM} MSH ^{AL} LRKITGV ^{LHKMNT} TLIFINQIRMKIGMMGYGSPETTTGGNALKFYA	221
VVVDLSVAALVTPKAEIDGDMGDS ^{KML} GHAR ^{LM} MSQAL ^{LM} RKL ^{LM} TSSISKTCTVIFINQLRDKIGVM.FGSPETTTGGNALKFYA	227
IIIVDSVAALVTPKAEIEGDMGD ^{SH} LMGLQAR ^{LM} MSQAL ^{LM} RKL ^{LM} TANIKNTNCLVIFINQIRMKIGVM.FGNPETTTGGNALKFYA	235
VVVDLSVAALVPRKAEIEGDMGD ^{SH} SHVGLQAR ^{LM} MSQAL ^{LM} RKL ^{LM} TGHIKKTNTLVVFINQIRMKIGVM.FGSPETTTGGNALKFY ^S	219
VVVDLSVAALVPRKAEIEGDMGD ^{SH} SHVGLQAR ^{LM} MSQAL ^{LM} RKL ^{LM} TGHIKKTNTLVVFINQIRMKIGVM.FGSPETTTGGNALKFY ^S	219
VVVDLSVAALVPRKAEIEGDMGD ^{SH} SHVGLQAR ^{LM} MSQAL ^{LM} RKL ^{LM} TGHIKKTNTLVVFINQIRMKIGVM.FGSPETTTGGNALKFY ^S	219
IVIDSVAALVPRKAEIEGEMGD ^{ALP} LGLQAR ^{LM} MSQAL ^{LM} RKL ^{LM} TGTIKRTNCLVIFINQIRMKIGVM.FGSPETTTGGNALKFYA	227
IVVDLSVAALVTPKAEIEGEMGD ^{SH} LMGLQAR ^{LM} MSQAM ^{LM} RKL ^{LM} TGNLQKSNCMCIFINQIRMKIGVM.FGNPETTTGGNALKFYA	218
IVVDLSVAALVTPKAEIEGEMGD ^{SH} LMGLQAR ^{LM} MSQAM ^{LM} RKL ^{LM} TGNLQKSNCMCIFINQIRMKIGVM.FGNPETTTGGNALKFYA	218
IVVDLSVAALVTPKAEIEGEMGD ^{SH} LMGLQAR ^{LM} MSQAL ^{LM} RKITGNAK ^{RSNCMV} IFINQIRMKIGVM.FGSPETTTGGNALKFYA	218
IVVDLSVAALVTPKAEIEGEMGD ^{SH} LMGLQAR ^{LM} MSQAL ^{LM} RKITGNAK ^{RSNCMV} IFINQIRMKIGVM.FGSPETTTGGNALKFYA	218
IIIVDSVAALVPRKAEIEGEMGD ^{AL} SHVGLQAR ^{LM} MSQAL ^{LM} RKITGN ^{IKNANCL} VIFINQIRMKIGVM.FGSPETTTGGNALKFYA	218

logo

NTDB id 625 LCA RS02525 WP 011374196.1	TVRLDVRRAETIKNGT....DMIGNRARIKVVKNKVAPPFKVAEVDIMYGGGISRTGELVDMAVEKDIINKSGSWYSYG	294
NTDB id 1045969 AB2Q53 RS07595 WP 003732286.1	TVRLDVRRAEQLKQGT....DVMGNKTKIKVVKNKVAPPFRVIAEVDIMYGGEGISREGELVDMAAEVDVINKSGSWYSYK	292
NTDB id 115 BSU 16940 NP 389576.2	SVRLDVRRAEQLKQGN....DVMGNKTKIKVVKNKVAPPFRVIAEVDIMYGGEGISKEGEIIDLGTELDIVQKSGSWYSYE	292
NTDB id 600 KW2 RS01765 WP 011675413.1	SVRLDVRGSTKIEEGS.GDNKTQIGKIITKIKVVKNKVAPPFKVALVDIMFGEGISSTGELLNIAVEEGTIKKSGAWFAYN	312
NTDB id 269 KZH43 RS08665 WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKAEAVVEIMYGGEGISKTGELLKIASDLDIKKKAGAWYSYK	311
NTDB id 228 SPD RS09265 WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKAEAVVEIMYGGEGISKTGELLKIASDLDIKKKAGAWYSYK	311
NTDB id 194 SPR RS08825 WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKAEAVVEIMYGGEGISKTGELLKIASDLDIKKKAGAWYSYK	311
NTDB id 159 SP RS09750 WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKAEAVVEIMYGGEGISKTGELLKIASDLDIKKKAGAWYSYK	311
NTDB id 499 SM12261 RS08315 WP 078228268.1	SVRLDVRGSTQIKGTG.DQKDTNVGKETKIKVVKNKVAPPFKAEAFVEIMYGGEGISKTGELLKIASDLDIKKKAGAWYSYK	311
NTDB id 527 SMSK321 RS11065 WP 001085454.1	SVRLDVRGSTQIKGTG.DQKDTNVGKETKIKVVKNKVAPPFKAEAFVEIMYGGEGISKTGELLKIASDLDIKKKAGAWYSYK	311
NTDB id 453 Spy49 1753c ACI62003.1	SVRLDVRGTTQIKGTG.DQKDSNIGKETKIKVVKNKVAPPFKVAEVEIMYGGEGISRTGELVKIASDLDIQKAGAWFSYN	311
NTDB id 408 SMU RS09530 WP 002262392.1	SVRLDVRGNTQIKGTG.EQKDSNIGKETKIKVVKNKVAPPFKAEAFVEIITYGGEGISRTGELVKIASDLGIIQKAGAWYSYN	311
NTDB id 1313 DR RS12030 WP 010888966.1	SVRLDVRKIGQ....PTKVGNDAAVANTVKIKTKTVKNKVAAPFKEVELALVYGGKGFQDLSDLVGLAADM DIKKKAGSFSYSYG	307
NTDB id 1245 Cj1673c YP 002345041.1	SVRLDVRKVAT....L.KQNEEPIGNRVKVVKNKVAPPFRQAEFDVMFGEGLSREGELIDYGVKLDIVDKSGAWFSYK	294
NTDB id 1211 C694 RS00795 WP 000963128.1	SVRIDIRRIAS....L.KQNEQHIGNRAKAKVVKNKVAPPFRVIAEFDIMFGEGISKEGEIIDYGVKLDIVDKSGAWLSYQ	296
NTDB id 1214 NCTC11637 00359 SQJ03206.1	SVRIDIRRIAA....L.KQNEQHIGNRAKAKVVKNKVAPPFRVIAEFDIMFGEGISKEGEIIDYGVKLDIVDKSGAWLSYQ	296
NTDB id 1334 RAOC RS04870 WP 004918236.1	SVRIDIRRLSDTGKIKDKSGEVIIGNRTKVVKNKVAPPFKSAEFDIMYGGEGVSKVGEILDVATDLDIQKSGSWFSYQ	307
NTDB id 1389 A4U84 RS07560 WP 021112712.1	SVRLDIRRCGV....V.KDGDEIIGSETKVVKNKVAPPFRVQFQFIMYGGEGISRMNELLILAEANGFIKKSGAWFSYD	310
NTDB id 1130 NGFG RS03960 WP 003688695.1	SVRLDIRRTGS....I.KKGEEVLGNETRVKVIKNKVAPPFRQAEFDILYGGEGISWEGELIDIGVKNDIINKSGAWYSYN	294
NTDB id 1124 NGFG RS03960 WP 003688695.1	SVRLDIRRTGS....I.KKGEEVLGNETRVKVIKNKVAPPFRQAEFDILYGGEGISWEGELIDIGVKNDIINKSGAWYSYN	294
NTDB id 1123 OK783 RS03845 WP 003688695.1	SVRLDIRRTGS....I.KKGEEVLGNETRVKVIKNKVAPPFRQAEFDILYGGEGISWEGELIDIGVKNDIINKSGAWYSYN	294
NTDB id 1427 RS RS02760 WP 011000510.1	SVRLDIRRIGS....I.KKGDEVVGNETKVVKNKVAPPFRVIAEFDILYGGAGVSRGEIIDLGVVEAKVVEKSGAWYSYN	302
NTDB id 1165 A1552VC RS01565 WP 000344154.1	SVRLDIRRTGA....I.KEGEEVLGNETRIKVVKNKIAAPFKEANTQIMYGGGFNREGELIDLGVKHKMVEKSGAWYSYN	293
NTDB id 1142 GTF74 RS11550 WP 000344154.1	SVRLDIRRTGA....I.KEGEEVLGNETRIKVVKNKIAAPFKEANTQIMYGGGFNREGELIDLGVKHKMVEKSGAWYSYN	293
NTDB id 1074 ABD1 RS10195 WP 000344167.1	SVRLDIRRIGQ....V.KEGDEIVGSETKVVKNKMAPPFKEAIFQILYGGKGTNQLGELVDLAVQQDIVQKAGAWYSYQ	293
NTDB id 1022 ACIAD RS06390 WP 004925639.1	SVRLDIRRIGQ....V.KEGDEIIGSETKVVKNKMAPPFKEAIFQILYGGKGVNQLGELVDLAVQQNIVQKAGAWYSYQ	293
NTDB id 1205 PSJM300 05545 AFN77183.1	SVRLDIRRTGA....V.KEGDEVVGSSETRVKVVKNKVAPPFRQAEFQILYGGKIYFNGEIIDLGVQQGLVEKSGAWYAYK	293
consensus	*!!***** * ** *****!!!!!!*!!* * *****!*!!!! ***** ** *** ! !*****!	

logo

NTDB id 625 LCA RS02525 WP 011374196.1	SERIGQGREN	AKNYLADHEDVEDEVRLKVR	AAAYGISDVPEEDLPTTEDEQINILPDDSTEE	355	
NTDB id 1045969 AB2Q53 RS07595 WP 003732286.1	EERIGQGREN	AKQYLKEHTDIRDEISKRV	REEYEIDGSSKEPLD..EKEETLSLLDDE	348	
NTDB id 115 BSU 16940 NP 389576.2	EERLGQGR	ENAKQFLKENKDIMLMIQEQ	IREHYGLDNNGVVQQAEETQEELEFEE	348	
NTDB id 600 KW2 RS01765 WP 011675413.1	DEKIGQGA	EAKNYLKEHQDVFDEIDHKV	RAAHGLDDSEVAETEEETTAS	387	
NTDB id 269 KZH43 RS08665 WP 001085462.1	DEKIGQGS	ENAKKYLAEHPEIFDEIDKQV	RSKFGGLIDGEEVSEQDTENKKDE...	PKKEEA..VNEEVPLDLGDELEIE	385
NTDB id 228 SPD RS09265 WP 001085462.1	DEKIGQGS	ENAKKYLAEHPEIFDEIDKQV	RSKFGGLIDGEEVSEQDTENKKDE...	PKKEEA..VNEEVPLDLGDELEIE	385
NTDB id 194 SPR RS08825 WP 001085462.1	DEKIGQGS	ENAKKYLAEHPEIFDEIDKQV	RSKFGGLIDGEEVSEQDTENKKDE...	PKKEEA..VNEEVPLDLGDELEIE	385
NTDB id 159 SP RS09750 WP 001085462.1	DEKIGQGS	ENAKKYLAEHPEIFDEIDKQV	RSKFGGLIDGEEVSEQDTENKKDE...	PKKEEA..VNEEVPLDLGDELEIE	385
NTDB id 499 SM12261 RS08315 WP 078228268.1	DEKIGQGS	ENAKKYLADNPEIFDEIDHQV	RVVQFGLIDGEEIAES....KKDE...	AAQVDS..VNEEVTLDLGDELEIE	381
NTDB id 527 SMSK321 RS11065 WP 001085454.1	DEKIGQGS	ENAKKYLADNPEVFAEIDHQV	RVVQFGLIDGEEAAES....KKDE...	VAQVDS..VNEEVTLDLGDELEIE	381
NTDB id 453 Spy49 1753c ACI62003.1	GEKIGQGS	ENAKRYLADHPQLFDEIDRKV	RVVKFGLLEESEESAMAVASE.....E.....	TDDLALDLN	377
NTDB id 408 SMU RS09530 WP 002262392.1	GEKIGQGS	ENAKKFLADNPEIFDDIDHKV	RVVQYGLIEEDNTEEKQSSKEK.....	ETDEK..ADKNLVLELDDTIELE	382
NTDB id 1313 DR RS12030 WP 010888966.1	DERIGQGG	KEKTIAYIAERPEMEQEIRDRV	MAAIRAGNAGEAPALAPAPAAPEAAEA	363	
NTDB id 1245 Cj1673c YP 002345041.1	DKKLGGGR	ENSKAFLKENPEIADEITKAI	QNSMGIEGMI....SGSEDDE..GEE	343	
NTDB id 1211 C694 RS00795 WP 000963128.1	DKKLGGGR	ENAKALLKEDKALADEITLK	IKESIGSNEEI....MPLPDEP..LEEME	347	
NTDB id 1214 NCTC11637 00359 SQJ03206.1	DKKLGGGR	ENAKALLKEDKALADEITLK	IKESIGSNEEI....MPLPDEP..LEEME	347	
NTDB id 1334 RAOC RS04870 WP 004918236.1	DTKLGGGR	DTVKELIKDNPELAEELEAKI	REKLQAK	343	
NTDB id 1389 A4U84 RS07560 WP 021112712.1	GTKIGQGG	KNNAVKWLKENPEIADKLEQE	IRNTLASNPNS....VLKATASDSNDES	372	
NTDB id 1130 NGFG RS03960 WP 003688695.1	GAKIGQGG	KDNVRVWLKENPEISDEIDAKI	RALNGVEMHI....TEGTQDET	348	
NTDB id 1124 NGFG RS03960 WP 003688695.1	GAKIGQGG	KDNVRVWLKENPEISDEIDAKI	RALNGVEMHI....TEGTQDET	348	
NTDB id 1123 OK783 RS03845 WP 003688695.1	GAKIGQGG	KDNVRVWLKENPEISDEIDAKI	RALNGVEMHI....TEGTQDET	348	
NTDB id 1427 RS RS02760 WP 011000510.1	GERIGQGR	DNCREFLRENAELAREIENK	VREHLGVTPMG....AV.TLAE	352	
NTDB id 1165 A1552VC RS01565 WP 000344154.1	GDKIGQGG	KANACKYLVKENPEIAKTLDK	KLREMLLNPNM....QLIAETSSAADD	354	
NTDB id 1142 GTF74 RS11550 WP 000344154.1	GDKIGQGG	KANACKYLVKENPEIAKTLDK	KLREMLLNPNM....QLIAETSSAADD	354	
NTDB id 1074 ABD1 RS10195 WP 000344167.1	GNKIGQGG	KNNVIRYFEENNQIAEEIERN	IREQLLTGTN....GAVQ.I.EDEE	349	
NTDB id 1022 ACIAD RS06390 WP 004925639.1	GNKIGQGG	KNNVIRYLEENPQISTEIEAV	IREQLLTASD....QTAA.HDETEE	349	
NTDB id 1205 PSJM300 05545 AFN77183.1	GSKIGQGG	KANAAKYLEENPEIGQEIEQ	QIRAKLLVTSAN....TKATPVAED	347	
consensus	**!!!***** ** * **** ***** ** *				

logo

			IEE	
NTDB id 625 LCA RS02525 WP 011374196.1	...	355		
NTDB id 1045969 AB2Q53 RS07595 WP 003732286.1	...	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 RA0C 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