

```

NTDB id 349374 K227x RS08235 WP 145169071.1
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 408 SMU RS09530 WP 002262392.1
NTDB id 453 Spy49 1753c ACI62003.1
NTDB id 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1313 DR RS12030 WP 010888966.1
NTDB id 1245 Cj1673c YP 002345041.1
NTDB id 1214 NCTC11637 00359 SQJ03206.1
NTDB id 1211 C694 RS00795 WP 000963128.1
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 1205 PSJM300 05545 AFN77183.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1074 ABD1 RS10195 WP 000344167.1

```

	MAKK	KK	EE	SKK	DE	K	KAL	AA	AL	KQ	IEK	FGK	SIM	RLG	E	AEQ	YQV	ST	GS	LD	ALG	GG	Y	PK	GR	
.MAAKKKAATGKSKIDPSLKEILAREPGLQTTLEQIDKAFDGAIMPLGAS.HHLDTEGIP	TGSL	S	L	D	M	A	L	G	G	Q	G	V	P	R	G	R										78
MATKK....KTNFDDITKKYGAERDKALADALALIEKDFGKGSIMRLGEA.ANQKVS	V	S	S	G	S	L	A	L	D	I	A	L	G	A	G	G	Y	P	K	G	R					74
.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQ	V	M	S	S	G	S	L	A	L	D	I	A	L	G	S	G	G	Y	P	K	G	R				73
.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQ	V	M	S	S	G	S	L	A	L	D	I	A	L	G	S	G	G	Y	P	K	G	R				73
.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQ	V	M	S	S	G	S	L	A	L	D	I	A	L	G	S	G	G	Y	P	K	G	R				73
.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQ	V	M	S	S	G	S	L	A	L	D	I	A	L	G	S	G	G	Y	P	K	G	R				73
.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQ	V	M	S	S	G	S	L	A	L	D	I	A	L	G	S	G	G	Y	P	K	G	R				73
.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQ	V	M	S	S	G	S	L	A	L	D	I	A	L	G	S	G	G	Y	P	K	G	R				73
.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQ	V	M	S	S	G	S	L	A	L	D	I	A	L	G	S	G	G	Y	P	K	G	R				73
.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQ	V	M	S	S	G	S	L	A	L	D	I	A	L	G	S	G	G	Y	P	K	G	R				73
.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQ	V	M	S	S	G	S	L	A	L	D	I	A	L	G	S	G	G	Y	P	K	G	R				73
.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQ	V	M	S	S	G	S	L	A	L	D	I	A	L	G	S	G	G	Y	P	K	G	R				73
.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQ	V	M	S	S	G	S	L	A	L	D	I	A	L	G	S	G	G	Y	P	K	G	R				73
.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQ	V	M	S	S	G	S	L	A	L	D	I	A	L	G	S	G	G	Y	P	K	G	R				73
.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQ	V	M	S	S	G	S	L	A	L	D	I	A	L	G	S	G	G	Y	P	K	G	R				73
.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQ	V	M	S	S	G	S	L	A	L	D	I	A	L	G	S	G	G	Y	P	K	G	R				73
.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQ	V	M	S	S	G	S	L	A	L	D	I	A	L	G	S	G	G	Y	P	K	G	R				73
.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQ	V	M	S	S	G	S	L	A	L	D	I	A	L	G	S	G	G	Y	P	K	G	R				73
.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQ	V	M	S	S	G	S	L	A	L	D	I	A	L	G	S	G	G	Y	P	K	G	R				73
.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQ	V	M	S	S	G	S	L	A	L	D	I	A	L	G	S	G	G	Y	P	K	G	R				73
.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQ	V	M	S	S	G	S	L	A	L	D	I	A	L	G	S	G	G	Y	P	K	G	R				73
.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQ	V	M	S	S	G	S	L	A	L	D	I	A	L	G	S	G	G	Y	P	K	G	R				73
.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQ	V	M	S	S	G	S	L	A	L	D	I	A	L	G	S	G	G	Y	P	K	G	R				73
.MAKK....PKKLEEISKKFGAEREKALNDAL																										

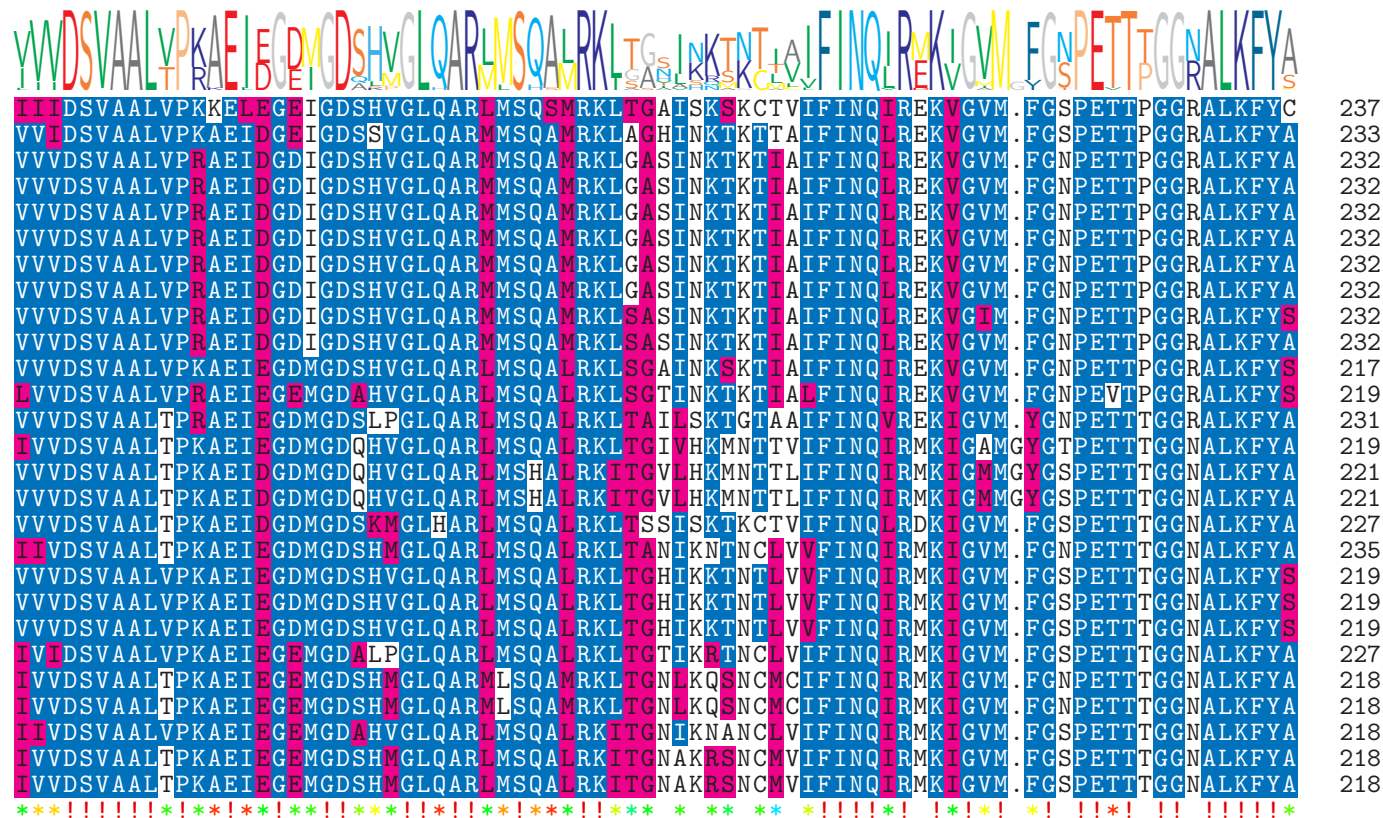
logo

NTDB id 349374 K227x RS08235 WP 145169071.1	MVEVFGPESSGKTTIALHIGAEAAQKMGGIAAIIIDAEHAFDPSWAKKLGVDLDTLLVSQPS	158
NTDB id 600 KW2 RS01765 WP 011675413.1	IVEIYGPESGKTTVALHAVAQKQEGGIAAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	154
NTDB id 269 KZH43 RS08665 WP 001085462.1	IIIEIYGPESGKTTVALHAVAQKQEGGIAAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	153
NTDB id 228 SPD RS09265 WP 001085462.1	IIIEIYGPESGKTTVALHAVAQKQEGGIAAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	153
NTDB id 194 SPR RS08825 WP 001085462.1	IIIEIYGPESGKTTVALHAVAQKQEGGIAAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	153
NTDB id 159 SP RS09750 WP 001085462.1	IIIEIYGPESGKTTVALHAVAQKQEGGIAAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	153
NTDB id 499 SM12261 RS08315 WP 078228268.1	IIIEIYGPESGKTTVALHAVAQKQEGGIAAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	153
NTDB id 527 SMSK321 RS11065 WP 001085454.1	IIIEIYGPESGKTTVALHAVAQKQEGGIAAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	153
NTDB id 408 SMU RS09530 WP 002262392.1	IVEIYGPESGKTTVALHAVAQKQEGGIAAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	153
NTDB id 453 Spy49 1753c ACI62003.1	IIIEIYGPESGKTTVALHAVAQKQEGGIAAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	153
NTDB id 115 BSU 16940 NP 389576.2	IIIEIYGPESGKTTVALHAVAQKQEGGIAAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	153
NTDB id 625 LCA RS02525 WP 011374196.1	IVEIYGPESGKTTVALHAVAQKQEGGIAAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	138
NTDB id 1313 DR RS12030 WP 010888966.1	IVEIYGPESGKTTVALHAVAQKQEGGIAAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	140
NTDB id 1245 Cj1673c YP 002345041.1	ITEIYGPESGKTTVALHAVAQKQEGGIAAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	152
NTDB id 1214 NCTC11637 00359 SQJ03206.1	IIIEIYGPESGKTTVALHAVAQKQEGGIAAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	139
NTDB id 1211 C694 RS00795 WP 000963128.1	IIIEIYGPESGKTTVALHAVAQKQEGGIAAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	141
NTDB id 1334 RAOC RS04870 WP 004918236.1	IVEIYGPESGKTTVALHAVAQKQEGGIAAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	148
NTDB id 1389 A4U84 RS07560 WP 021112712.1	IVEIYGPESGKTTVALHAVAQKQEGGIAAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	156
NTDB id 1130 NGFG RS03960 WP 003688695.1	IVEIFGPESGKTTLCLEAVAQCKQNGGVCFAFVDAEHAFDPVYARKLGKVEELYLSQPDYGEQGLQIAEKLITSGAVDL	140
NTDB id 1124 NGFG RS03960 WP 003688695.1	IVEIFGPESGKTTLCLEAVAQCKQNGGVCFAFVDAEHAFDPVYARKLGKVEELYLSQPDYGEQGLQIAEKLITSGAVDL	140
NTDB id 1123 OK783 RS03845 WP 003688695.1	IVEIFGPESGKTTLCLEAVAQCKQNGGVCFAFVDAEHAFDPVYARKLGKVEELYLSQPDYGEQGLQIAEKLITSGAVDL	140
NTDB id 1427 RS RS02760 WP 011000510.1	VVEIYGPESGKTTTLTLQVVAEMQKLGGTCAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	148
NTDB id 1165 A1552VC RS01565 WP 000344154.1	IVEIFGPESGKTTTLTLQVVAEMQKLGGTCAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	139
NTDB id 1142 GTF74 RS11550 WP 000344154.1	IVEIFGPESGKTTTLTLQVVAEMQKLGGTCAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	139
NTDB id 1205 PSJM300 05545 AFN77183.1	IVEIYGPESGKTTTLTLQVVAEMQKLGGTCAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	139
NTDB id 1022 ACIAD RS06390 WP 004925639.1	IVEIYGPESGKTTMTLQAIQAQCKQKAGGTCAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	139
NTDB id 1074 ABD1 RS10195 WP 000344167.1	IIIEIYGPESGKTTMTLQAIQAQCKQKAGGTCAFIDAENALDPEYAKALGVNIDELLSSQPDYGEQGLQIAEKLITSGAVDL	139
consensus	***!***!!!!*!!!!*! *!*! !* ** !***!!!!*!* *! !!******!***!!*!!*!!!!* * ****!***!*	

```

NTDB id 349374 K227x RS08235 WP 145169071.1
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 408 SMU RS09530 WP 002262392.1
NTDB id 453 Spy49 1753c ACI62003.1
NTDB id 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1313 DR RS12030 WP 010888966.1
NTDB id 1245 Cj1673c YP 002345041.1
NTDB id 1214 NCTC11637 00359 SQJ03206.1
NTDB id 1211 C694 RS00795 WP 000963128.1
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 1205 PSJM300 05545 AFN77183.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1074 ABD1 RS10195 WP 000344167.1
consensus

```



logo

NTDB id 349374 K227x RS08235 WP 145169071.1	SVRLDVRRIIGAL....KDGDEQVGQRVKAKIVKNKVAPPFRIAEFDMMHNNGISFEGDLLIDLTTHKVVNRAGAWFKYGG	312
NTDB id 600 KW2 RS01765 WP 011675413.1	SVRLDVRGSTKIEEGS.GDNKTQIGKITIKVVKNKVAPPFKVALVDIMFGEGISSTGELLNIAVEEGITIKKSGAWFAYN	312
NTDB id 269 KZH43 RS08665 WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKEAVVEIMYEGEGISKTGELLKIASDLDIKKAGAWYSYK	311
NTDB id 228 SPD RS09265 WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKEAVVEIMYEGEGISKTGELLKIASDLDIKKAGAWYSYK	311
NTDB id 194 SPR RS08825 WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKEAVVEIMYEGEGISKTGELLKIASDLDIKKAGAWYSYK	311
NTDB id 159 SP RS09750 WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKEAVVEIMYEGEGISKTGELLKIASDLDIKKAGAWYSYK	311
NTDB id 499 SM12261 RS08315 WP 078228268.1	SVRLDVRGSTQIKGTG.DQKDTNVGKETKIKVVKNKVAPPFKEAFVEIMYEGEGISKTGELLKIASDLDIKKAGAWYSYK	311
NTDB id 527 SMSK321 RS11065 WP 001085454.1	SVRLDVRGSTQIKGTG.DQKDTNVGKETKIKVVKNKVAPPFKEAFVEIMYEGEGISKTGELLKIASDLDIKKAGAWYSYK	311
NTDB id 408 SMU RS09530 WP 002262392.1	SVRLDVRGNTQIKGTG.EQKDSNIGKETKIKVVKNKVAPPFKEAFVEIIMYEGEGISRTGELVKIASDLGIIQKAGAWYSYN	311
NTDB id 453 Spy49 1753c ACI62003.1	SVRLDVRGTTQIKGTG.DQKDSSIGKETKIKVVKNKVAPPFKVAEVEIMYEGEGISRTGELVKIASDLDIQKAGAWFSYN	311
NTDB id 115 BSU 16940 NP 389576.2	SVRLEVRRAEQLKQGN.....DVMGNKTKIKVVKNKVAPPFRTAEVDIMYEGEGISKEGEIIDLGTELIDIVQKSGSWYSYE	292
NTDB id 625 LCA RS02525 WP 011374196.1	TVRLEVRRAETIKNGT.....DMIGNRARIKVVKNKVAPPFKVAEVDIMYGGQGISRTGELVDMAVEKDIINKSGSWYSYG	294
NTDB id 1313 DR RS12030 WP 010888966.1	SVRLDVRKIGQ....PTKVGNDAAVANTVKIKTVKNKVAAPFKEVELALVYGKGFQDQLSDLVGLAADMDIINKAGSFYSYG	307
NTDB id 1245 Cj1673c YP 002345041.1	SVRLDVRKVAT....L.KQNEEPIGNRVKVVKNKVAPPFRQAEDVDMFGEGLSREGELIDYGVKLDIVDKSGAWFSYK	294
NTDB id 1214 NCTC11637 00359 SQJ03206.1	SVRIDIRRIAA....L.KQNEQHIGNRAKAKVVKNKVAPPFREAEFDIMFGEGISKEGEIIDYGVKLDIVDKSGAWLSYQ	296
NTDB id 1211 C694 RS00795 WP 000963128.1	SVRIDIRRIAS....L.KQNEQHIGNRAKAKVVKNKVAPPFREAEFDIMFGEGISKEGEIIDYGVKLDIVDKSGAWLSYQ	296
NTDB id 1334 RAOC RS04870 WP 004918236.1	SVRIDIRRLSDTGKIKDKSGEVIGNRTKVVVKNKVAPPFKSAEFDIMYEGEGVSKVGEILDVATDLDIQKSGSWFSYQ	307
NTDB id 1389 A4U84 RS07560 WP 021112712.1	SVRLDIRRCGV....V.KDGDEIIGSETKVVKNKVAPPFREVQFDIMYEGEGISRMNELLILAEANGFIKKSGAWFSYD	310
NTDB id 1130 NGFG RS03960 WP 003688695.1	SVRLDIRRTGS....I.KKGEVVLGNETRVRKVIKNKVAPPFRQAEDDILYEGEGISWEGELIDIGVKNDIINKSGAWYSYN	294
NTDB id 1124 NGFG RS03960 WP 003688695.1	SVRLDIRRTGS....I.KKGEVVLGNETRVRKVIKNKVAPPFRQAEDDILYEGEGISWEGELIDIGVKNDIINKSGAWYSYN	294
NTDB id 1123 OK783 RS03845 WP 003688695.1	SVRLDIRRTGS....I.KKGEVVLGNETRVRKVIKNKVAPPFRQAEDDILYEGEGISWEGELIDIGVKNDIINKSGAWYSYN	294
NTDB id 1427 RS RS02760 WP 011000510.1	SVRLDIRRIGS....I.KKGEDEVGNETKVVKNKVAPPFREAIFFDILYGAGVSREGEIIDLGVEAKVVEKSGAWYSYN	302
NTDB id 1165 A1552VC RS01565 WP 000344154.1	SVRLDIRRTGA....I.KEGEEVVGNETRIKVVKNKIAAPFKEANTQIMYGGGFNREGELIDLGVKHKMVEKSGAWYSYN	293
NTDB id 1142 GTF74 RS11550 WP 000344154.1	SVRLDIRRTGA....I.KEGEEVVGNETRIKVVKNKIAAPFKEANTQIMYGGGFNREGELIDLGVKHKMVEKSGAWYSYN	293
NTDB id 1205 PSJM300 05545 AFN77183.1	SVRLDIRRTGA....V.KEGDEVVGSETRVKNKVAPPFRQAEFQILYGKGVIYRNGEIIDLGVQQGLVEKSGAWYAYK	293
NTDB id 1022 ACIAD RS06390 WP 004925639.1	SVRLDIRRIGQ....V.KEGDEIIGSETKVVKNKMAPPFREAIFFQILYGKGVNQLGELVDLAVQQNIVQKAGAWYSYQ	293
NTDB id 1074 ABD1 RS10195 WP 000344167.1	SVRLDIRRIGQ....V.KEGDEIVGSETKVVKNKMAPPFKEAIFQILYGKGVTNQLGELVDLAVQQDIVQKAGAWYSYQ	293
consensus	***!***!* * ** *****!*****!*****! * * *****!***** ***** ** *** * !*****!	

logo

NTDB id 349374 K227x RS08235 WP 145169071.1	ETYLGQGGKEKARNFLIENVDIRDEIKHKVLAAGGYAEPLHDASEADADADG...E.....SEENSEAELSNS....	377
NTDB id 600 KW2 RS01765 WP 011675413.1	DEKIGQGAEKAKNYLKEHQDVDFEIDHKVRAAHGLLDDSEVAETEEETTASKTAKAKKEEKAVETEEIELELED....	387
NTDB id 269 KZH43 RS08665 WP 001085462.1	DEKIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIE	385
NTDB id 228 SPD RS09265 WP 001085462.1	DEKIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIE	385
NTDB id 194 SPR RS08825 WP 001085462.1	DEKIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIE	385
NTDB id 159 SP RS09750 WP 001085462.1	DEKIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIE	385
NTDB id 499 SM12261 RS08315 WP 078228268.1	DEKIGQGSENAKKYLAENPEIFDEIDHQVRVQFGLIDGEEIAES....KKDE....AAQVDS..VNEEVTLDLGDLEIE	381
NTDB id 527 SMSK321 RS11065 WP 001085454.1	DEKIGQGSENAKKYLAENPEVFAEIDHQVRVQFGLIDGEEAAES....KKDE....VAQVDS..VNEEVTLDLGDLEIE	381
NTDB id 408 SMU RS09530 WP 002262392.1	GEKIGQGSENAKKFLADNPEIFDDIDHKVRVQYGLIEEDNTEEEKQSSKEK.....ETDEK..ADKNLVLELDDTIELE	382
NTDB id 453 Spy49 1753c ACI62003.1	GEKIGQGSENAKRYLADHPQLFDEIDRKVRVKFGLLEESEEEESAMAVASE.....E.....TDDLALDLNGIEIE	377
NTDB id 115 BSU 16940 NP 389576.2	EERLGQGGRENAKQFLKENKDIMLMIQEQIREHYGLDNNGVVQQAEETQEEL.EFE.E.....	348
NTDB id 625 LCA RS02525 WP 011374196.1	SERIGQGGRENAKNYLADHEDVEDEVRLKVRAAYGTSADVPEEDLPTTEDE.QI.NILPDDST.....EE.....	355
NTDB id 1313 DR RS12030 WP 010888966.1	DERIGQGGKEKTIAYYIAERPEMEQEIRDRVMAAIRAGNAGEAPALAPAPAAPEAAE..A.....	363
NTDB id 1245 Cj1673c YP 002345041.1	DKKLGQGGRENSKAFLENKENPEIADEITKAIQNSMGIEGMI.....SGSEDDE..GE..E.....	343
NTDB id 1214 NCTC11637 00359 SQJ03206.1	DKKLGQGGRENAKALLKEDKALADEITLKI KESIGSNEEI.....MPLPDEP..LE..EME.....	347
NTDB id 1211 C694 RS00795 WP 000963128.1	DKKLGQGGRENAKALLKEDKALADEITLKI KESIGSNEEI.....MPLPDEP..LE..EME.....	347
NTDB id 1334 RAOC RS04870 WP 004918236.1	DTKLGQGRDTV KELIKDNPELAEELEAKIREKLQAK.....	343
NTDB id 1389 A4U84 RS07560 WP 021112712.1	GTKIGQGGKNNAVKWLKENPEIADKLEQEIRNTLASNPNS....VLKATASDSND..ESDVVEEFSEEL.....	372
NTDB id 1130 NGFG RS03960 WP 003688695.1	GAKIGQGGKDNVRVWLKENPEISDEIDAKIRALNGVEMHI.....TEGT.....Q..DET DGERPEE.....	348
NTDB id 1124 NGFG RS03960 WP 003688695.1	GAKIGQGGKDNVRVWLKENPEISDEIDAKIRALNGVEMHI.....TEGT.....Q..DET DGERPEE.....	348
NTDB id 1123 OK783 RS03845 WP 003688695.1	GAKIGQGGKDNVRVWLKENPEISDEIDAKIRALNGVEMHI.....TEGT.....Q..DET DGERPEE.....	348
NTDB id 1427 RS RS02760 WP 011000510.1	GERIGQGRDNCREFLRENAELAREIENKVREHLGVTPMG....AV.TLAEVEVEE..D.....	352
NTDB id 1165 A1552VC RS01565 WP 000344154.1	GDKIGQGGKANACKY LKENPEIAKTLDDKKLREMLLNPENM....QLIAETSSAAD..DVEFGAVPEEF.....	354
NTDB id 1142 GTF74 RS11550 WP 000344154.1	GDKIGQGGKANACKY LKENPEIAKTLDDKKLREMLLNPENM....QLIAETSSAAD..DVEFGAVPEEF.....	354
NTDB id 1205 PSJM300 05545 AFN77183.1	GSKIGQGGKANAAKYLEENPEIGQEIEQQIRAKLLVTSAN.....TKATPVAEDLA..DADI.....	347
NTDB id 1022 ACIAD RS06390 WP 004925639.1	GNKIGQGGKNNVIRYLEENPQISTEIEAVIREQLLTKASD....QTAA.HDETEE..EPDLL..ES.....	349
NTDB id 1074 ABD1 RS10195 WP 000344167.1	GNKIGQGGKNNVIRYFEENNQIAEEIERNIREQLLTGTN....GAVQ.I.EDEE..EPDLL..LES.....	349
consensus	***!!!!***** ** ***** ***** ** ** *	

logo

		IEE	
NTDB id 349374 K227x RS08235 WP 145169071.1	...		377
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 453 Spy49 1753c ACI62003.1	D..		378
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			

- X non conserved
- X similar
- X ≥ 50% conserved