

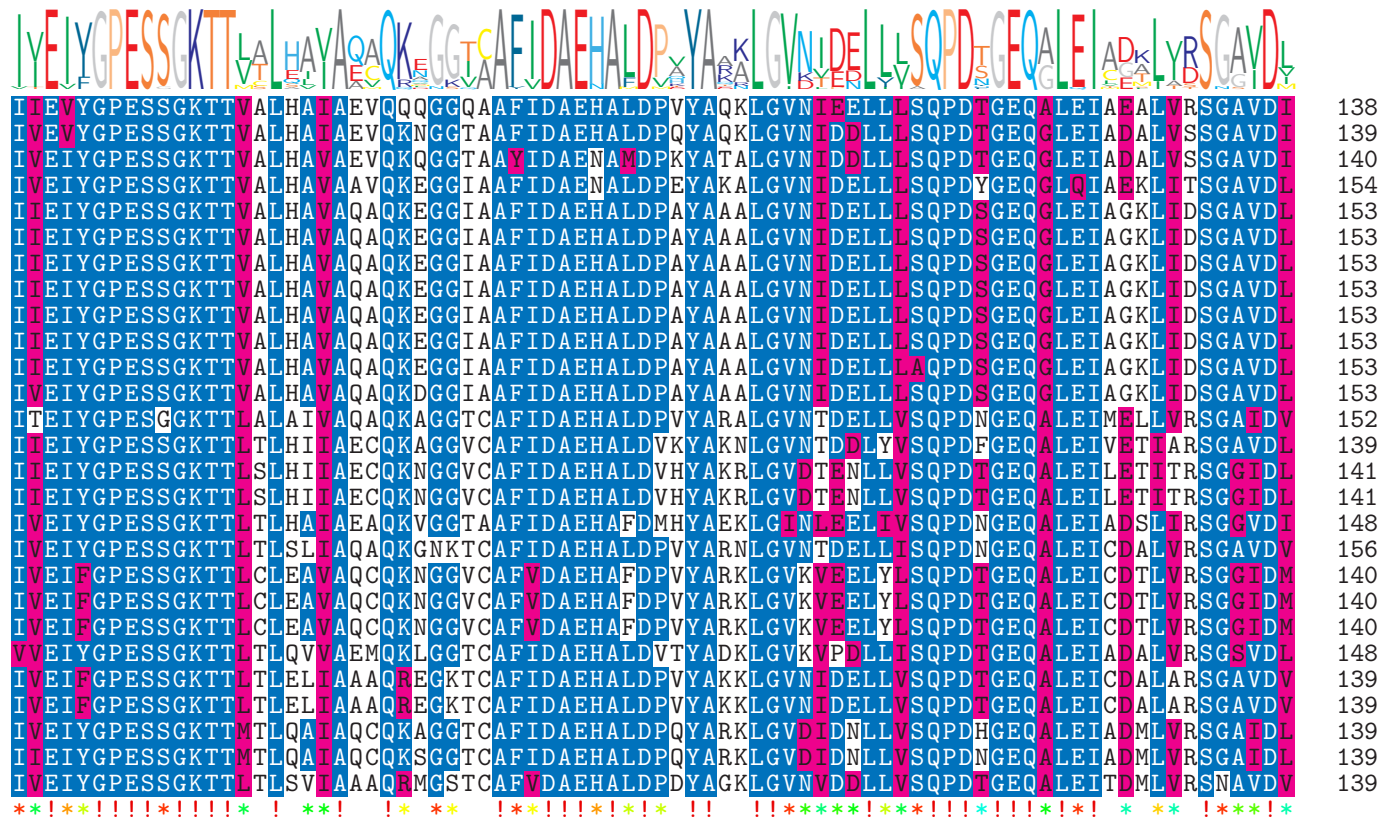
logo

NTDB id 115 BSU 16940 NP 389576.2	MS	DRQAALDMALKQ	IEKQ	FGKGSIMKLGEK	.TDTR	ISTV	SGSLALD	TALGI	GGYPRGR	58		
NTDB id 57298 ENLAB RS09400 WP 077453209.1	MA	DDRKAALDAALKK	IEKN	YGKGAIMKLGEK	.VDQQ	ISTP	SGSLALD	V	ALGVGGYPRGR	59		
NTDB id 625 LCA RS02525 WP 011374196.1	MAK	DERQAALDAALKK	IEKN	FGKGSIMRMGEK	.VDTQ	VSTV	SSGSLALDE	ALGV	GGYPRGR	60		
NTDB id 600 KW2 RS01765 WP 011675413.1	MATK.....	KKTNFDDITKKYGA	ERD	KALADALAL	IEKD	FGKGSIMRLGEA	.ANQK	VSVV	SSGSLALD	TALGAGGYPKGR	74	
NTDB id 269 KZH43 RS08665 WP 001085462.1	.MAK.....	KPKKLEEISKKFGA	ERE	KALNDALKL	IEKD	FGKGSIMRLGER	.AEQK	VQVM	SSGSLALD	TALGSGGYPKGR	73	
NTDB id 228 SPD RS09265 WP 001085462.1	.MAK.....	KPKKLEEISKKFGA	ERE	KALNDALKL	IEKD	FGKGSIMRLGER	.AEQK	VQVM	SSGSLALD	TALGSGGYPKGR	73	
NTDB id 194 SPR RS08825 WP 001085462.1	.MAK.....	KPKKLEEISKKFGA	ERE	KALNDALKL	IEKD	FGKGSIMRLGER	.AEQK	VQVM	SSGSLALD	TALGSGGYPKGR	73	
NTDB id 159 SP RS09750 WP 001085462.1	.MAK.....	KPKKLEEISKKFGA	ERE	KALNDALKL	IEKD	FGKGSIMRLGER	.AEQK	VQVM	SSGSLALD	TALGSGGYPKGR	73	
NTDB id 499 SM12261 RS08315 WP 078228268.1	.MAK.....	KPKKLDEISKKFGA	ERE	KALNDALKL	IEKD	FGKGSIMRLGER	.AEQK	VQVM	SSGSLALD	TALGSGGYPKGR	73	
NTDB id 527 SMSK321 RS11065 WP 001085454.1	.MAK.....	KPKKLDEISKKFGA	ERE	KALNDALKL	IEKD	FGKGSIMRLGER	.AEQK	VQVM	SSGSLALD	TALGSGGYPKGR	73	
NTDB id 453 Spy49 1753c ACI62003.1	.MAK.....	KLKKNEEITKKFG	DERR	KALDDALKN	IEKD	FGKGAVMRLGER	.AEQK	VQVM	SSGSLALD	TALGAGGYPKGR	73	
NTDB id 408 SMU RS09530 WP 002262392.1	.MAK.....	RIKKTEEITKKFG	DERK	KALDDALKN	IEKD	FGKGAVMRLGER	.AEQK	VQVM	SSGSLALD	TALGAGGYPKGR	73	
NTDB id 1313 DR RS12030 WP 010888966.1	MSK	DATKEISAPTD	AKERS	KA	TET	AMSQ	IEKA	FGKGSIMKLGA	E.SKLD	VQVSTGSLSLD	TALGVGGIPRGR	72
NTDB id 1245 Cj1673c YP 002345041.1	MD	DNKRKSLDAALKS	LDKT	FGKGTILRLGDK	.EVEQ	IDS	IGTGSVGLDL	ALGI	GGV	PKGR	59	
NTDB id 1211 C694 RS00795 WP 000963128.1	MAID	EDKQKAISLA	IKQ	IDKV	FGKGALVRLGDK	.QVEK	IDA	ISTGSLGLDL	ALGI	GGV	PKGR	61
NTDB id 1214 NCTC11637 00359 SQJ03206.1	MAID	EDKQKAISLA	IKQ	IDKV	FGKGALVRLGDK	.QVEK	IDA	ISTGSLGLDL	ALGI	GGV	PKGR	61
NTDB id 1334 RAOC RS04870 WP 004918236.1	MAKT..	ETTS	PNDD	KKKALAAVLEK	LDKT	YGKGTVMKLG	DGTVD	HNIEV	IPSGSLGLDL	ALGVGGYPKGR	68	
NTDB id 1389 A4U84 RS07560 WP 021112712.1	.MAENKKSSKNNTV..	VKQVEP	EQKKQ	ALEAALA	QIEKQ	FGKGSIMKL	QGT.EQLD	IESV	TGSLGLDL	ALGIGGL	PMGR	76
NTDB id 1130 NGFG RS03960 WP 003688695.1	MS	DDKSKALAAALA	QIEKS	FGKGAIMKMDGS	Q	Q	Q	EENLE	VISTGSLGLDL	ALGVGGL	PRGR	60
NTDB id 1124 NGFG RS03960 WP 003688695.1	MS	DDKSKALAAALA	QIEKS	FGKGAIMKMDGS	Q	Q	Q	EENLE	VISTGSLGLDL	ALGVGGL	PRGR	60
NTDB id 1123 OK783 RS03845 WP 003688695.1	MS	DDKSKALAAALA	QIEKS	FGKGAIMKMDGS	Q	Q	Q	EENLE	VISTGSLGLDL	ALGVGGL	PRGR	60
NTDB id 1427 RS RS02760 WP 011000510.1	.MEDG.....	K..KAASMSA	EKQ	KALAAALA	QIEKQ	FGKGSIMKM	GDA.EVEP	VQV	VSTGSLGLD	V	ALGVGGLPRGR	68
NTDB id 1165 A1552VC RS01565 WP 000344154.1	MD	ENKQKALAAALGQ	IEKQ	FGKGSIMRLG	DN.RAM	DVET	ISTGSLSLD	TALGAGGL	PMGR		59	
NTDB id 1142 GTF74 RS11550 WP 000344154.1	MD	ENKQKALAAALGQ	IEKQ	FGKGSIMRLG	DN.RAM	DVET	ISTGSLSLD	TALGAGGL	PMGR		59	
NTDB id 1022 ACIAD RS06390 WP 004925639.1	MD	DNKSKALQAALSQ	IEKQ	FGKNTVMRLG	DN.TVQ	AVEA	VSTGSLTLD	TALGIGGL	PKGR		59	
NTDB id 1074 ABD1 RS10195 WP 000344167.1	MD	ENKSKALQAALSQ	IEKQ	FGKNTVMRLG	DN.TVQ	AVEA	VSTGSLTLD	TALGIGGL	PKGR		59	
NTDB id 1205 PSJM300 05545 AFN77183.1	MD	ENKKRALAAALGQ	IEKQ	FGKGAVMR	MDH.DRQA	IPS	ISTGSLGLD	TALGI	GGL	PKGR	59	
consensus	***	***	*	***	***	*****	*	*****	*****	*****		

```

NTDB id 115 BSU 16940 NP 389576.2
NTDB id 57298 ENLAB RS09400 WP 077453209.1
NTDB id 625 LCA RS02525 WP 011374196.1
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 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 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1074 ABD1 RS10195 WP 000344167.1
NTDB id 1205 PSJM300 05545 AFN77183.1
consensus

```



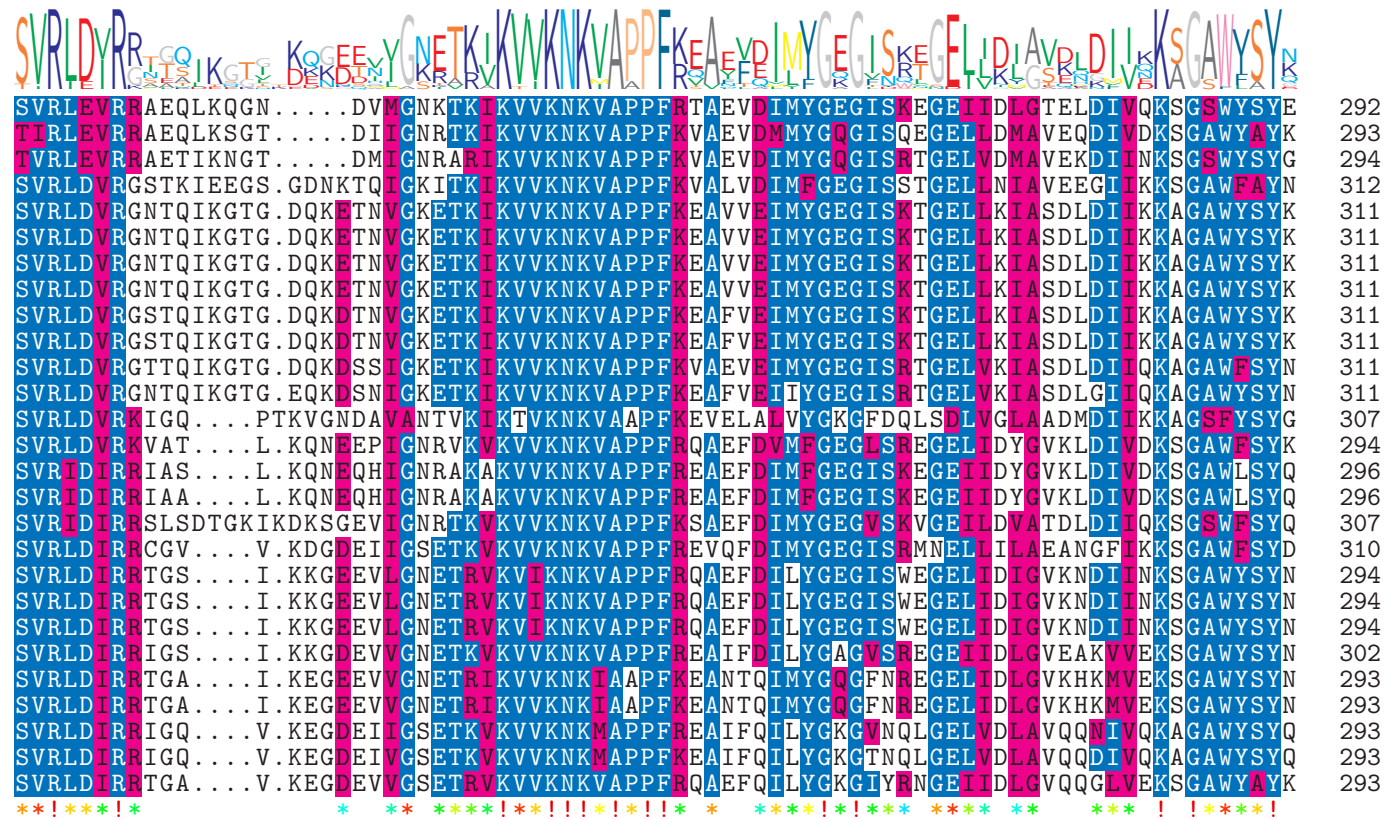
logo

NTDB id 115 BSU 16940 NP 389576.2	VVVDSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLSGA	INKSKTTAIFINQIREKVGVM	.FGNPETTPGGRALKFY	S	217
NTDB id 57298 ENLAB RS09400 WP 077453209.1	VVIDSVAALVPRAEIDGEMGDTHVGLQARLMSQALRKLSGS	SINKTKTTAIFINQIREKVGIM	.FGNPETTPGGRALKFY	S	218
NTDB id 625 LCA RS02525 WP 011374196.1	LVVDSVAALVPRAEIEGEMGDAHVGLQARLMSQALRKLSGT	INKTKTTAIFINQIREKVGVM	.FGNPEVTPGGRALKFY	S	219
NTDB id 600 KW2 RS01765 WP 011675413.1	VVIDSVAALVPKAEIDGEIGDSSVGLQARMMSQAMRKL	AGHINKTKTTAIFINQLREKVGVM	.FGSPETTPGGRALKFY	A	233
NTDB id 269 KZH43 RS08665 WP 001085462.1	VVVDSVAALVPRAEIDGDIIGDSHVGLQARMMSQAMRKL	ASINKTKTTAIFINQLREKVGVM	.FGNPETTPGGRALKFY	A	232
NTDB id 228 SPD RS09265 WP 001085462.1	VVVDSVAALVPRAEIDGDIIGDSHVGLQARMMSQAMRKL	ASINKTKTTAIFINQLREKVGVM	.FGNPETTPGGRALKFY	A	232
NTDB id 194 SPR RS08825 WP 001085462.1	VVVDSVAALVPRAEIDGDIIGDSHVGLQARMMSQAMRKL	ASINKTKTTAIFINQLREKVGVM	.FGNPETTPGGRALKFY	A	232
NTDB id 159 SP RS09750 WP 001085462.1	VVVDSVAALVPRAEIDGDIIGDSHVGLQARMMSQAMRKL	ASINKTKTTAIFINQLREKVGVM	.FGNPETTPGGRALKFY	A	232
NTDB id 499 SM12261 RS08315 WP 078228268.1	VVVDSVAALVPRAEIDGDIIGDSHVGLQARMMSQAMRKL	ASINKTKTTAIFINQLREKVGVM	.FGNPETTPGGRALKFY	A	232
NTDB id 527 SMSK321 RS11065 WP 001085454.1	VVVDSVAALVPRAEIDGDIIGDSHVGLQARMMSQAMRKL	ASINKTKTTAIFINQLREKVGVM	.FGNPETTPGGRALKFY	A	232
NTDB id 453 Spy49 1753c ACI62003.1	VVVDSVAALVPRAEIDGDIIGDSHVGLQARMMSQAMRKL	SASINKTKTTAIFINQLREKVGVM	.FGNPETTPGGRALKFY	A	232
NTDB id 408 SMU RS09530 WP 002262392.1	VVVDSVAALVPRAEIDGDIIGDSHVGLQARMMSQAMRKL	SASINKTKTTAIFINQLREKVGIM	.FGNPETTPGGRALKFY	S	232
NTDB id 1313 DR RS12030 WP 010888966.1	VVVDSVAALTTPRAEIEGDMGDSLPLGLQARLMSQALRKLT	AILSKTGTAIFINQVREKIGVM	.YGNPETTTGGNALKFY	A	231
NTDB id 1245 Cj1673c YP 002345041.1	IVVDSVAALTTPKAEIEGDMGDQHVGLQARLMSQALRKLT	GIHVHKMNTTVIFINQIRMKIGAMGY	GTPETTTGGNALKFY	A	219
NTDB id 1211 C694 RS00795 WP 000963128.1	VVVDSVAALTTPKAEIDGDMGDQHVGLQARLMSHALRKIT	GVVHLHKMNTTLIFINQIRMKIGMMGY	GSPETTTGGNALKFY	A	221
NTDB id 1214 NCTC11637 00359 SQJ03206.1	VVVDSVAALTTPKAEIDGDMGDQHVGLQARLMSHALRKIT	GVVHLHKMNTTLIFINQIRMKIGMMGY	GSPETTTGGNALKFY	A	221
NTDB id 1334 RAOC RS04870 WP 004918236.1	VVVDSVAALTTPKAEIDGDMGDSKMGLHARLMSQALRKLT	SSISKTKCTVIFINQLRDKIGVM	.FGSPETTTGGNALKFY	A	227
NTDB id 1389 A4U84 RS07560 WP 021112712.1	IIVDSVAALTTPKAEIEGDMGDSHMGLQARLMSQALRKLT	ANIKNTNCLVVFINQIRMKIGVM	.FGNPETTTGGNALKFY	A	235
NTDB id 1130 NGFG RS03960 WP 003688695.1	VVVDSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLT	GHIKKTNTLVVFINQIRMKIGVM	.FGSPETTTGGNALKFY	S	219
NTDB id 1124 NGFG RS03960 WP 003688695.1	VVVDSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLT	GHIKKTNTLVVFINQIRMKIGVM	.FGSPETTTGGNALKFY	S	219
NTDB id 1123 OK783 RS03845 WP 003688695.1	VVVDSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLT	GHIKKTNTLVVFINQIRMKIGVM	.FGSPETTTGGNALKFY	S	219
NTDB id 1427 RS RS02760 WP 011000510.1	IVIDSVAALVPKAEIEGEMGDALPGLQARLMSQALRKLT	GTIKRTNCLVIFINQIRMKIGVM	.FGSPETTTGGNALKFY	A	227
NTDB id 1165 A1552VC RS01565 WP 000344154.1	IVVDSVAALTTPKAEIEGEMGDSHMGLQARMLSQAMRKL	TGNLQKSNCMCIFINQIRMKIGVM	.FGNPETTTGGNALKFY	A	218
NTDB id 1142 GTF74 RS11550 WP 000344154.1	IVVDSVAALTTPKAEIEGEMGDSHMGLQARMLSQAMRKL	TGNLQKSNCMCIFINQIRMKIGVM	.FGNPETTTGGNALKFY	A	218
NTDB id 1022 ACIAD RS06390 WP 004925639.1	IVVDSVAALTTPKAEIEGEMGDSHMGLQARLMSQALRKIT	GNAKRSNCMVIFINQIRMKIGVM	.FGSPETTTGGNALKFY	A	218
NTDB id 1074 ABD1 RS10195 WP 000344167.1	IVVDSVAALTTPKAEIEGEMGDSHMGLQARLMSQALRKIT	GNAKRSNCMVIFINQIRMKIGVM	.FGSPETTTGGNALKFY	A	218
NTDB id 1205 PSJM300 05545 AFN77183.1	IIVDSVAALVPKAEIEGEMGDAAHVGLQARLMSQALRKIT	GNINKNANCLVIFINQIRMKIGVM	.FGSPETTTGGNALKFY	A	218
consensus	***!!!!!!*!*****!*****!*****!*****!*****	* * * * *	* * * * *	* * * * *	

```

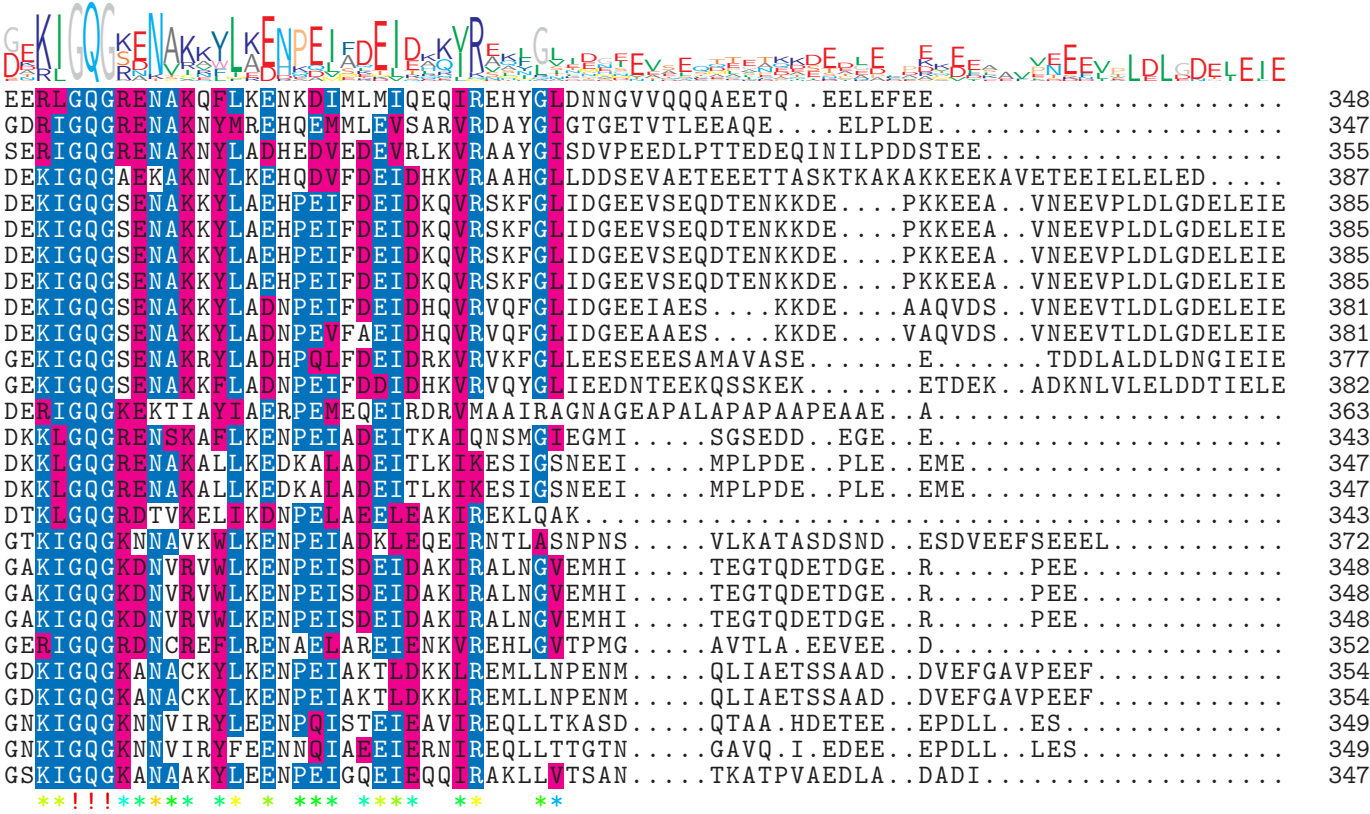
NTDB id 115 BSU 16940 NP 389576.2
NTDB id 57298 ENLAB RS09400 WP 077453209.1
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 269 KZH43 RS08665 WP 001085462.1
NTDB id 228 SPD RS09265 WP 001085462.1
NTDB id 194 SPR RS08825 WP 001085462.1
NTDB id 159 SP RS09750 WP 001085462.1
NTDB id 499 SM12261 RS08315 WP 078228268.1
NTDB id 527 SMSK321 RS11065 WP 001085454.1
NTDB id 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 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1074 ABD1 RS10195 WP 000344167.1
NTDB id 1205 PSJM300 05545 AFN77183.1
consensus

```



logo

NTDB id 115 BSU 16940 NP 389576.2
NTDB id 57298 ENLAB RS09400 WP 077453209.1
NTDB id 625 LCA RS02525 WP 011374196.1
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 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 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1074 ABD1 RS10195 WP 000344167.1
NTDB id 1205 PSJM300 05545 AFN77183.1
consensus



logo

		IEE	
NTDB id 115 BSU 16940 NP 389576.2	...	348	
NTDB id 57298 ENLAB RS09400 WP 077453209.1	...	347	
NTDB id 625 LCA RS02525 WP 011374196.1	...	355	
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 1022 ACIAD RS06390 WP 004925639.1	...	349	
NTDB id 1074 ABD1 RS10195 WP 000344167.1	...	349	
NTDB id 1205 PSJM300 05545 AFN77183.1	...	347	
consensus			

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