

logo



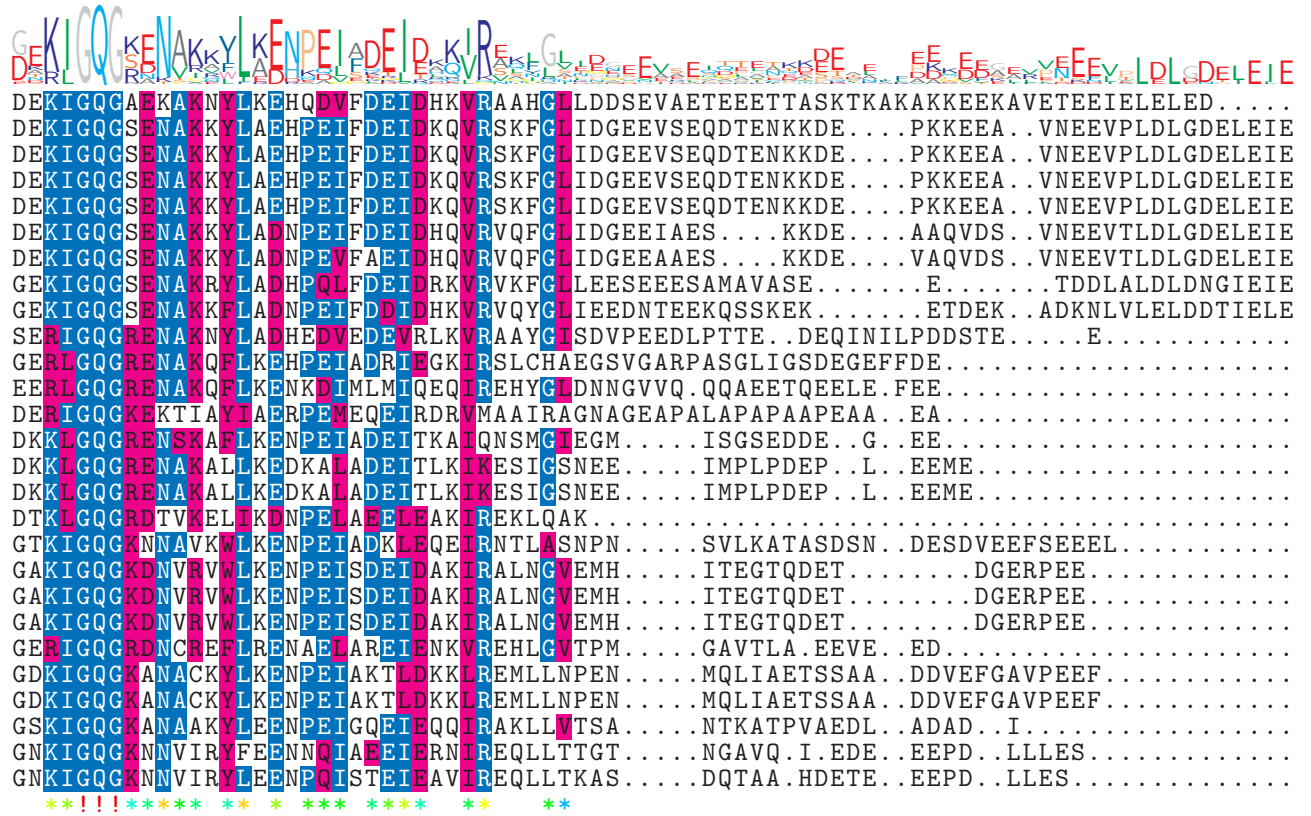
NTDB id 600 KW2 RS01765 WP 011675413.1	MATKK....KTNFDDITKKYGAERDKALADALALIEKD	FGKGSIMRLGERAE	.QKVS	VSSGSLALDI	ALGAGGYPKGR	74	
NTDB id 269 KZH43 RS08665 WP 001085462.1	.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKD	FGKGSIMRLGERAE	.QKVQVMSSGSLALDI	ALGSGGYPKGR	73		
NTDB id 228 SPD RS09265 WP 001085462.1	.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKD	FGKGSIMRLGERAE	.QKVQVMSSGSLALDI	ALGSGGYPKGR	73		
NTDB id 194 SPR RS08825 WP 001085462.1	.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKD	FGKGSIMRLGERAE	.QKVQVMSSGSLALDI	ALGSGGYPKGR	73		
NTDB id 159 SP RS09750 WP 001085462.1	.MAKK....PKKLEEISKKFGAEREKALNDALKLIEKD	FGKGSIMRLGERAE	.QKVQVMSSGSLALDI	ALGSGGYPKGR	73		
NTDB id 499 SM12261 RS08315 WP 078228268.1	.MAKK....PKKLDEISKKFGAEREKALNDALKLIEKD	FGKGSIMRLGERAE	.QKVQVMSSGSLALDI	ALGSGGYPKGR	73		
NTDB id 527 SMSK321 RS11065 WP 001085454.1	.MAKK....PKKLDEISKKFGAEREKALNDALKLIEKD	FGKGSIMRLGERAE	.QKVQVMSSGSLALDI	ALGSGGYPKGR	73		
NTDB id 453 Spy49 1753c ACI62003.1	.MAKK....LKKNEEITKKFGDERRKALDDALKNIEKD	FGKGAVMRLGERAE	.QKVQVMSSGSLALDI	ALGAGGYPKGR	73		
NTDB id 408 SMU RS09530 WP 002262392.1	.MAKR....IKKTEEITKKFGDERRKALDDALKNIEKD	FGKGAVMRLGERAE	.QKVQVMSSGSLALDI	ALGAGGYPKGR	73		
NTDB id 625 LCA RS02525 WP 011374196.1	.....MAKD	ERQAALDAALKKIEKN	FGKGSIMRMGEKVD	.TQVSTVSSGSLALDEALGVGGYPRGR	60	
NTDB id 418878 GWK42 RS08265 WP 170085610.1	.....MA	DRKAALDMALRQIEKQ	FGKGSIMKLG	EAAQASMNVEVSTGALALDI	ALGVGGFPGR	59
NTDB id 115 BSU 16940 NP 389576.2	.....MS	DRQAALDMALKQIEKQ	FGKGSIMKLG	EKTDRITSTVPSGSLALDTALGIGGYPGR	58	
NTDB id 1313 DR RS12030 WP 010888966.1	.....MSKDATKEISAPTDAK	ERSKATETAMSQIEKA	FGKGSIMKLG	AESKLDVQVVSTGSLSLDL	ALGVGGIPGR	72
NTDB id 1245 Cj1673c YP 002345041.1	.....MDDN	KRKSALDAALKSLDKT	FGKGTILRLGDK	.EVEQIDSIGTGSVGLDL	ALGIGGVPKGR	59
NTDB id 1214 NCTC11637 00359 SQJ03206.1	.....MAIDE	DKQKATISLAIKQID	KVFGKALVRLGDK	.QVEKIDAI	ISTGSLGLDLALGIGGVPKGR	61
NTDB id 1211 C694 RS00795 WP 000963128.1	.....MAIDE	DKQKATISLAIKQID	KVFGKALVRLGDK	.QVEKIDS	ISTGSLGLDLALGIGGVPKGR	61
NTDB id 1334 RAOC RS04870 WP 004918236.1	.....MAKT..ETTSPND	DKKKAALAVLEKLDKT	YGKGTVMKLG	DGTVDHNIEVIPS	GSLGLDLALGVGGYPKGR	68
NTDB id 1389 A4U84 RS07560 WP 021112712.1	.MAENKKSNNTV..VKQVEPEQ	KKQALEAALAIQIEKQ	FGKGSIMKLG	QTEQLDIESVSTGSLGLDL	ALGIGGLPMGR	76	
NTDB id 1130 NGFG RS03960 WP 003688695.1	.....MSD	DKSKALAAALAIQIEKS	FGKGAIMKMDGS	QREENLEVISTGSLGLDL	ALGVGGLPGR	60
NTDB id 1124 NGFG RS03960 WP 003688695.1	.....MSD	DKSKALAAALAIQIEKS	FGKGAIMKMDGS	QREENLEVISTGSLGLDL	ALGVGGLPGR	60
NTDB id 1123 OK783 RS03845 WP 003688695.1	.....MSD	DKSKALAAALAIQIEKS	FGKGAIMKMDGS	QREENLEVISTGSLGLDL	ALGVGGLPGR	60
NTDB id 1427 RS RS02760 WP 011000510.1	.MEDG.....K..KAASMSA	EKQKALAAALAIQIEKQ	FGKGSIMKMGDA	.EVEPVQVVSTGSLGLDV	ALGVGGLPGR	68	
NTDB id 1165 A1552VC RS01565 WP 000344154.1	.....MDEN	KQKALAAALGQIEKQ	FGKGSIMRLGDN	.RAMDVETISTGSLSLDI	ALGAGGLPMGR	59
NTDB id 1142 GTF74 RS11550 WP 000344154.1	.....MDEN	KQKALAAALGQIEKQ	FGKGSIMRLGDN	.RAMDVETISTGSLSLDI	ALGAGGLPMGR	59
NTDB id 1205 PSJM300 05545 AFN77183.1MDEN	KRALAAALGQIEKQ	FGKGAVMRMGDH	.DRQAIP	ISTGSLGLDI	ALGIGGLPKGR	59
NTDB id 1074 ABD1 RS10195 WP 000344167.1	.....MDEN	KSKALQAALSQIEKQ	FGKNTVMRLGDN	.TVQAVEAVSTGSLTLDI	ALGIGGLPKGR	59
NTDB id 1022 ACIAD RS06390 WP 004925639.1	.....MDDN	KSKALQAALSQIEKQ	FGKNTVMRLGDN	.TVQAVEAVSTGSLTLDI	ALGIGGLPKGR	59
consensus		* * * * *	* * * * *	* * * * * ! * * * * * * * * * * *	* * * * * ! * * * * * ! * * * * * ! * * * * *		

logo

		IYEIYGPESGKTTVALHAVAQAQKGGTCAAFIDAEHALDPYALGVNIDELLSQPDYGEQGLQIAEKLITSGAVDL	
NTDB id 600	KW2 RS01765 WP 011675413.1	IVEIYGPESGKTTVALHAVAQAQKGGIAAFIDAEHALDPYAKALGVNIDELLSQPDYGEQGLQIAEKLITSGAVDL	154
NTDB id 269	KZH43 RS08665 WP 001085462.1	IIIEIYGPESGKTTVALHAVAQAQKGGIAAFIDAEHALDPAYAAAALGVNIDELLSQPDSGEQGLEIAGKLIDSGAVDL	153
NTDB id 228	SPD RS09265 WP 001085462.1	IIIEIYGPESGKTTVALHAVAQAQKGGIAAFIDAEHALDPAYAAAALGVNIDELLSQPDSGEQGLEIAGKLIDSGAVDL	153
NTDB id 194	SPR RS08825 WP 001085462.1	IIIEIYGPESGKTTVALHAVAQAQKGGIAAFIDAEHALDPAYAAAALGVNIDELLSQPDSGEQGLEIAGKLIDSGAVDL	153
NTDB id 159	SP RS09750 WP 001085462.1	IIIEIYGPESGKTTVALHAVAQAQKGGIAAFIDAEHALDPAYAAAALGVNIDELLSQPDSGEQGLEIAGKLIDSGAVDL	153
NTDB id 499	SM12261 RS08315 WP 078228268.1	IIIEIYGPESGKTTVALHAVAQAQKGGIAAFIDAEHALDPAYAAAALGVNIDELLSQPDSGEQGLEIAGKLIDSGAVDL	153
NTDB id 527	SMSK321 RS11065 WP 001085454.1	IIIEIYGPESGKTTVALHAVAQAQKGGIAAFIDAEHALDPAYAAAALGVNIDELLSQPDSGEQGLEIAGKLIDSGAVDL	153
NTDB id 453	Spy49 1753c ACI62003.1	IIIEIYGPESGKTTVALHAVAQAQKGGIAAFIDAEHALDPAYAAAALGVNIDELLSQPDSGEQGLEIAGKLIDSGAVDL	153
NTDB id 408	SMU RS09530 WP 002262392.1	IVEIYGPESGKTTVALHAVAQAQKGGIAAFIDAEHALDPAYAAAALGVNIDELLSQPDSGEQGLEIAGKLIDSGAVDL	153
NTDB id 625	LCA RS02525 WP 011374196.1	IVEIYGPESGKTTVALHAVAQEVQKGGTAAIDAENAMPKYATALGVNIDELLSQPDYGEQGLEIADALVSSGAVDI	140
NTDB id 418878	GWK42 RS08265 WP 170085610.1	VIEIYGPESGKTTVALHAVAQEVQKGGTAAIDAENAMPKYATALGVNIDELLSQPDYGEQGLEIADALVSSGAVDI	139
NTDB id 115	BSU 16940 NP 389576.2	IIIEYGPESGKTTVALHAVAQEVQKGGTAAIDAENAMPKYATALGVNIDELLSQPDYGEQGLEIADALVSSGAVDI	138
NTDB id 1313	DR RS12030 WP 010888966.1	ITEIYGPESGKTTVALHAVAQAQKGGTCAAFIDAEHALDPVYARALGVNIDELLSQPDYGEQGLEIADALVSSGAVDI	152
NTDB id 1245	Cj1673c YP 002345041.1	IIIEIYGPESGKTTVALHAVAQAQKGGTCAAFIDAEHALDPVYARALGVNIDELLSQPDYGEQGLEIADALVSSGAVDI	139
NTDB id 1214	NCTC11637 00359 SQJ03206.1	IIIEIYGPESGKTTVALHAVAQAQKGGTCAAFIDAEHALDPVYARALGVNIDELLSQPDYGEQGLEIADALVSSGAVDI	141
NTDB id 1211	C694 RS00795 WP 000963128.1	IIIEIYGPESGKTTVALHAVAQAQKGGTCAAFIDAEHALDPVYARALGVNIDELLSQPDYGEQGLEIADALVSSGAVDI	141
NTDB id 1334	RAOC RS04870 WP 004918236.1	IVEIYGPESGKTTVALHAVAQAQKGGTCAAFIDAEHALDPVYARALGVNIDELLSQPDYGEQGLEIADALVSSGAVDI	148
NTDB id 1389	A4U84 RS07560 WP 021112712.1	IVEIYGPESGKTTVALHAVAQAQKGGTCAAFIDAEHALDPVYARALGVNIDELLSQPDYGEQGLEIADALVSSGAVDI	156
NTDB id 1130	NGFG RS03960 WP 003688695.1	IVEIFGPESGKTTVALHAVAQAQKGGTCAAFIDAEHALDPVYARALGVNIDELLSQPDYGEQGLEIADALVSSGAVDI	140
NTDB id 1124	NGFG RS03960 WP 003688695.1	IVEIFGPESGKTTVALHAVAQAQKGGTCAAFIDAEHALDPVYARALGVNIDELLSQPDYGEQGLEIADALVSSGAVDI	140
NTDB id 1123	OK783 RS03845 WP 003688695.1	IVEIFGPESGKTTVALHAVAQAQKGGTCAAFIDAEHALDPVYARALGVNIDELLSQPDYGEQGLEIADALVSSGAVDI	140
NTDB id 1427	RS RS02760 WP 011000510.1	VVEIYGPESGKTTVALHAVAQAQKGGTCAAFIDAEHALDPVYARALGVNIDELLSQPDYGEQGLEIADALVSSGAVDI	148
NTDB id 1165	A1552VC RS01565 WP 000344154.1	IVEIFGPESGKTTVALHAVAQAQKGGTCAAFIDAEHALDPVYARALGVNIDELLSQPDYGEQGLEIADALVSSGAVDI	139
NTDB id 1142	GTF74 RS11550 WP 000344154.1	IVEIFGPESGKTTVALHAVAQAQKGGTCAAFIDAEHALDPVYARALGVNIDELLSQPDYGEQGLEIADALVSSGAVDI	139
NTDB id 1205	PSJM300 05545 AFN77183.1	IVEIYGPESGKTTVALHAVAQAQKGGTCAAFIDAEHALDPVYARALGVNIDELLSQPDYGEQGLEIADALVSSGAVDI	139
NTDB id 1074	ABD1 RS10195 WP 000344167.1	IIIEIYGPESGKTTVALHAVAQAQKGGTCAAFIDAEHALDPVYARALGVNIDELLSQPDYGEQGLEIADALVSSGAVDI	139
NTDB id 1022	ACIAD RS06390 WP 004925639.1	IVEIYGPESGKTTVALHAVAQAQKGGTCAAFIDAEHALDPVYARALGVNIDELLSQPDYGEQGLEIADALVSSGAVDI	139
consensus		**!***!!!!*!!!!* ! **! !* ** !***!!*!!* !! !!****!!*!!*!!*!!*!!* !!*!!*!!*!!*	

logo




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 625 LCA RS02525 WP 011374196.1
 NTDB id 418878 GWK42 RS08265 WP 170085610.1
 NTDB id 115 BSU 16940 NP 389576.2
 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 1074 ABD1 RS10195 WP 000344167.1
 NTDB id 1022 ACIAD RS06390 WP 004925639.1
 consensus



logo

```

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 625 LCA RS02525 WP 011374196.1 ... 355
NTDB id 418878 GWK42 RS08265 WP 170085610.1 ... 351
NTDB id 115 BSU 16940 NP 389576.2 ... 348
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 1074 ABD1 RS10195 WP 000344167.1 ... 349
NTDB id 1022 ACIAD RS06390 WP 004925639.1 ... 349
consensus
```

 non conserved
 similar
 ≥ 50% conserved