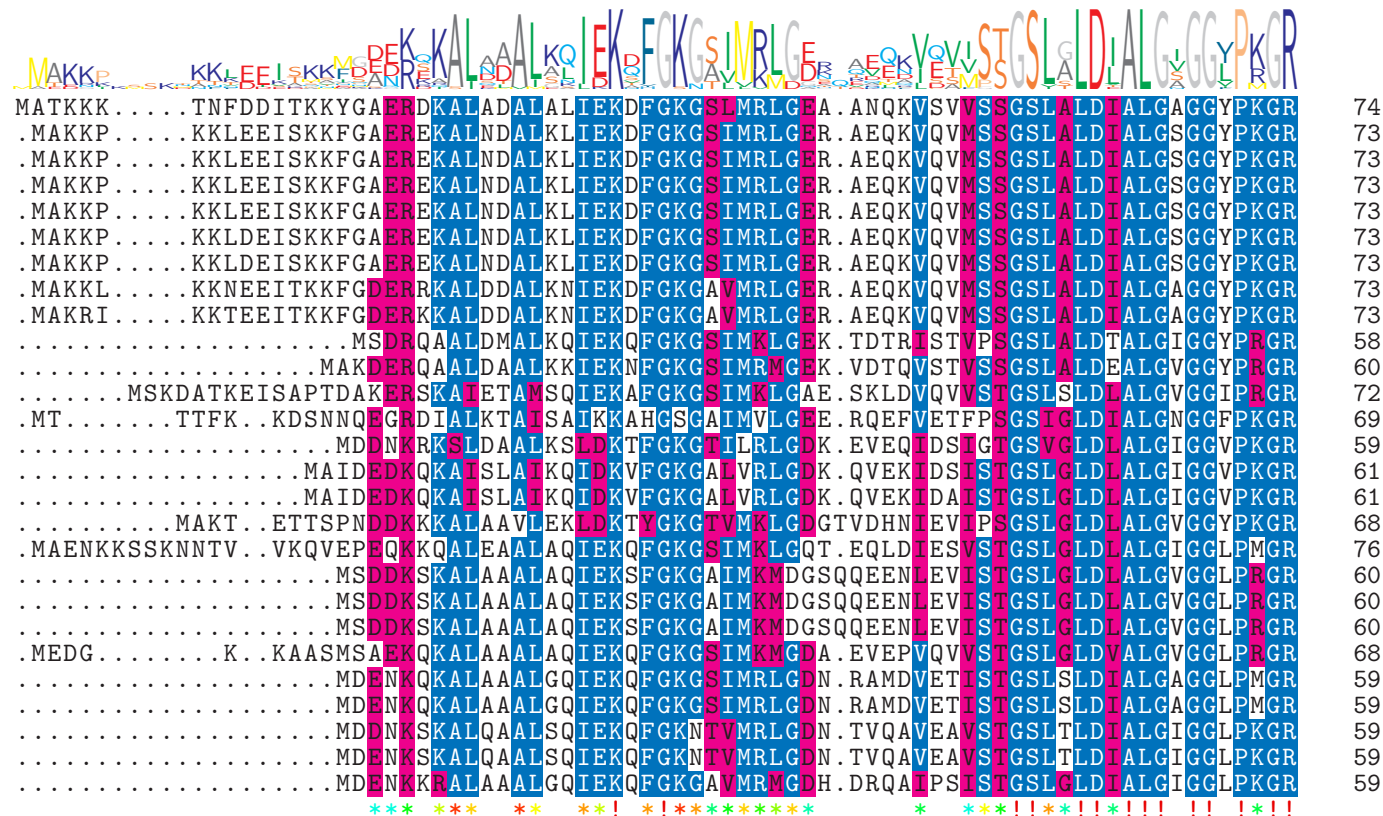


```

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 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1313 DR RS12030 WP 010888966.1
NTDB id 264842 Fsol RS01755 WP 108673184.1
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

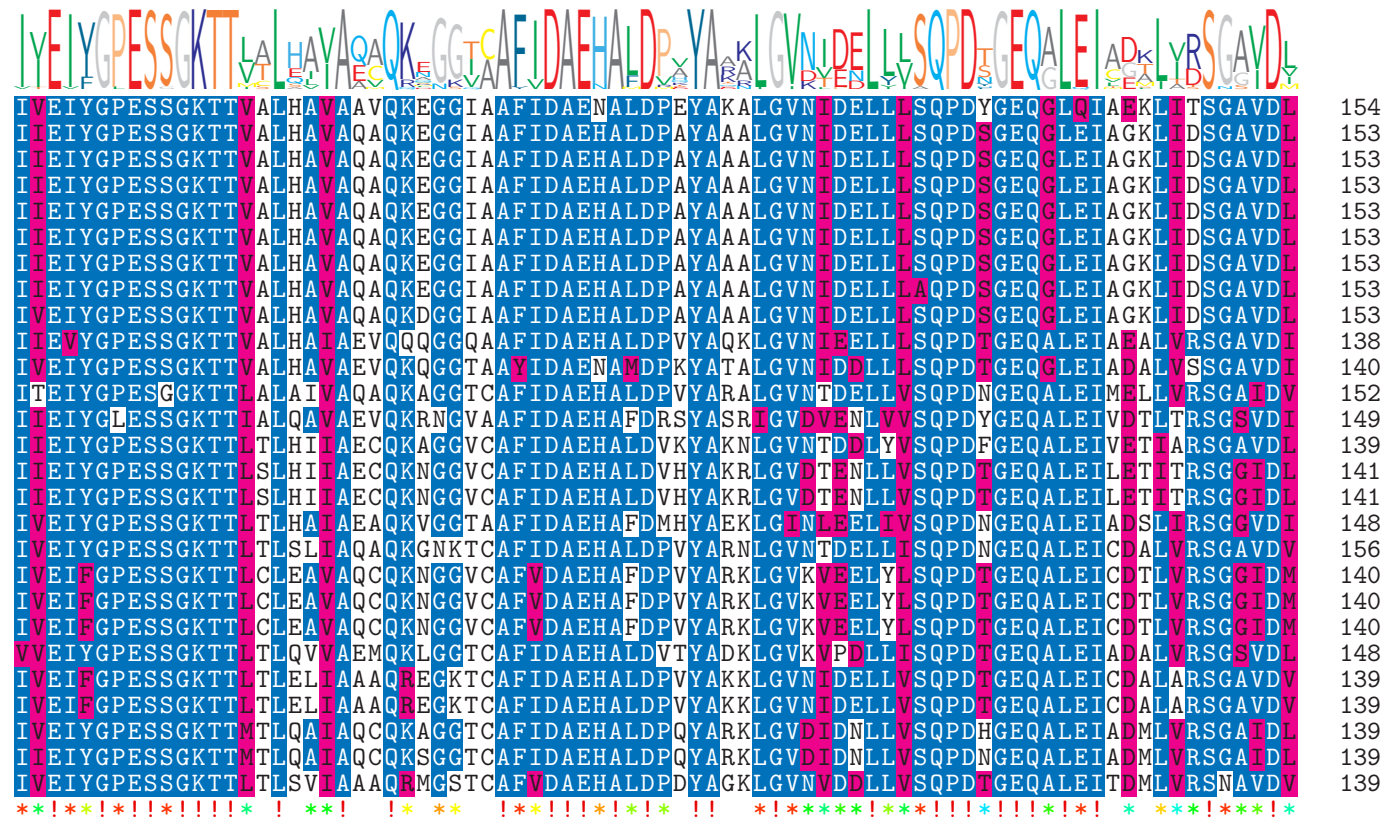
```



```

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 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1313 DR RS12030 WP 010888966.1
NTDB id 264842 Fso1 RS01755 WP 108673184.1
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

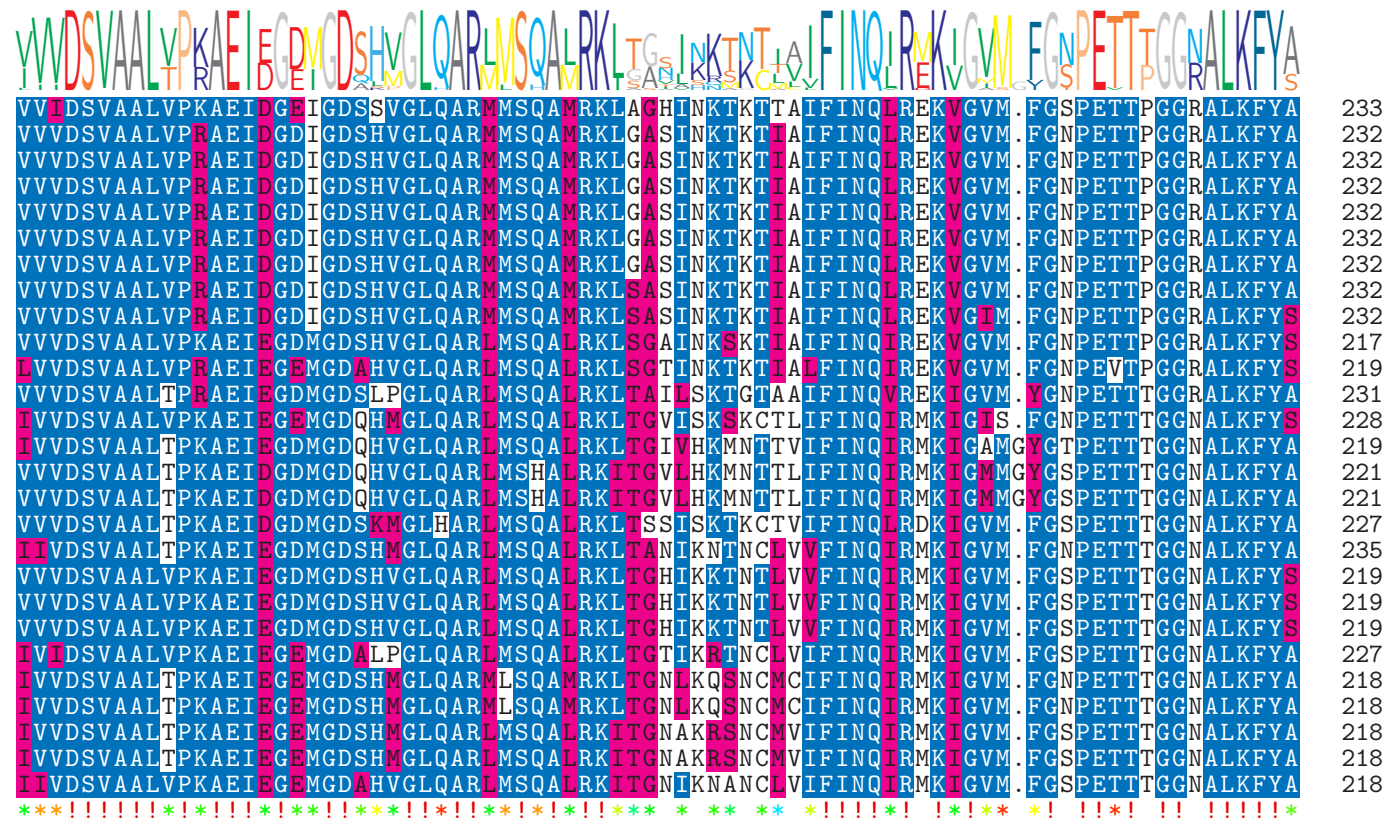
```



```

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 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1313 DR RS12030 WP 010888966.1
NTDB id 264842 Fso1 RS01755 WP 108673184.1
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

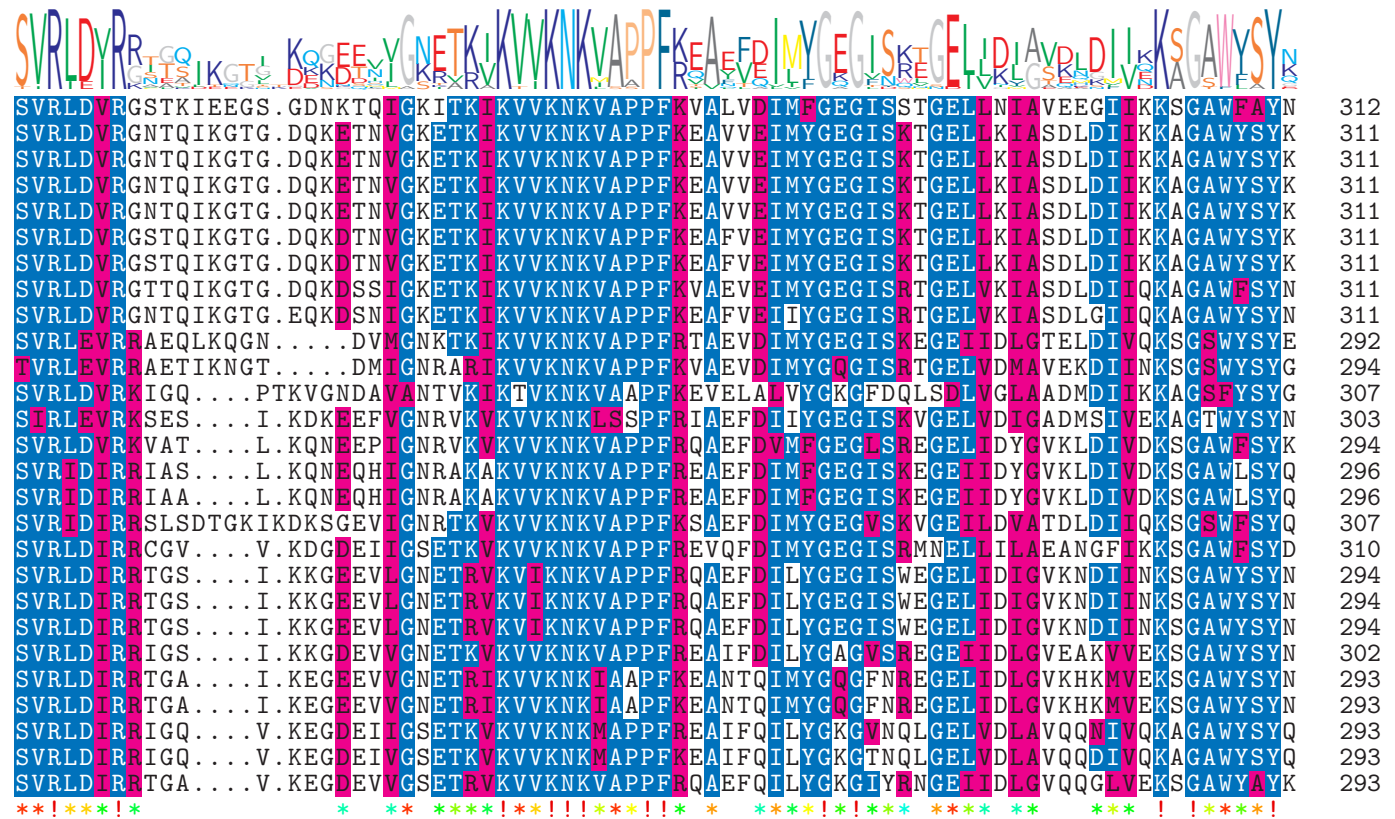
```



```

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 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1313 DR RS12030 WP 010888966.1
NTDB id 264842 Fso1 RS01755 WP 108673184.1
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 600 KW2 RS01765 WP 011675413.1	DEKIGQGA	EKAKNYLKEHQDV	DEIDHKVRAAHG	LDDSEVA	ETEEETTAS	TKAKAKKEEK	AVETEEIE	LELED	387
NTDB id 269 KZH43 RS08665 WP 001085462.1	DEKIGQGS	ENAKKYLAEHPEIF	DEIDKQVRSKF	GLIDGEEVS	EQDTENKK	DE	PKKEEA	VNEEVPLDLGD	380
NTDB id 228 SPD RS09265 WP 001085462.1	DEKIGQGS	ENAKKYLAEHPEIF	DEIDKQVRSKF	GLIDGEEVS	EQDTENKK	DE	PKKEEA	VNEEVPLDLGD	380
NTDB id 194 SPR RS08825 WP 001085462.1	DEKIGQGS	ENAKKYLAEHPEIF	DEIDKQVRSKF	GLIDGEEVS	EQDTENKK	DE	PKKEEA	VNEEVPLDLGD	380
NTDB id 159 SP RS09750 WP 001085462.1	DEKIGQGS	ENAKKYLAEHPEIF	DEIDKQVRSKF	GLIDGEEVS	EQDTENKK	DE	PKKEEA	VNEEVPLDLGD	380
NTDB id 499 SM12261 RS08315 WP 078228268.1	DEKIGQGS	ENAKKYLAADNPEIF	DEIDHQVRVQF	GLIDGEEIA	ES	KKDE	AAQVDS	VNEEVTLDLGD	376
NTDB id 527 SMSK321 RS11065 WP 001085454.1	DEKIGQGS	ENAKKYLAADNPEV	FAEIDHQVRVQF	GLIDGEEAA	ES	KKDE	VAQVDS	VNEEVTLDLGD	376
NTDB id 453 Spy49 1753c ACI62003.1	GEKIGQGS	ENAKRYLADHPQLF	DEIDRKVRVKF	GLLEESEEE	SAMAVASE	E	TDDLALDLN		372
NTDB id 408 SMU RS09530 WP 002262392.1	GEKIGQGS	ENAKKFLADNPEIF	DDIDHKVRVQY	GLIEEDNTE	EKQSSKEK	ETDEK	ADKNLVLELDD		377
NTDB id 115 BSU 16940 NP 389576.2	EE	RLGQGREN	AKQFLKENK	DIIMLIQE	QIREHYGL	DNNGVVQ	QQAEE	TQEEL	348
NTDB id 625 LCA RS02525 WP 011374196.1	SERIGQGS	ENAKNYLADHED	VEDEVRLK	VRAAYG	ISDVP	PEED	LPTTEDE	QI	355
NTDB id 1313 DR RS12030 WP 010888966.1	DERIGQGS	KEKTIA	YIAERPEME	QEIRDRV	MAAIRAGN	AGEAPAL	AAPAAPEAAE	A	363
NTDB id 264842 Fsol RS01755 WP 108673184.1	GV	KIGQGRE	NAKRYLKENS	SAVAEE	ITAKIMA	ATSQNQT	VS	LREV	361
NTDB id 1245 Cj1673c YP 002345041.1	DKK	LGQGRE	NSKAF	LKENPEI	ADEITK	AIQNSM	G	EGMIS	343
NTDB id 1211 C694 RS00795 WP 000963128.1	DKK	LGQGRE	NAKALLKED	KALADEIT	LKIKES	IGSNEE	IM	PLPDE	347
NTDB id 1214 NCTC11637 00359 SQJ03206.1	DKK	LGQGRE	NAKALLKED	KALADEIT	LKIKES	IGSNEE	IM	PLPDE	347
NTDB id 1334 RAOC RS04870 WP 004918236.1	DT	KLGQGR	DTV	KELIK	DNPELA	EELEAK	IREKLQAK		343
NTDB id 1389 A4U84 RS07560 WP 021112712.1	GT	KIGQGS	KNN	AVKWLKEN	PEIADK	LEQEI	RNTLAS	NPNSV	372
NTDB id 1130 NGFG RS03960 WP 003688695.1	GAK	IGQSKDN	VRVWLKEN	PEISDE	IDAKI	RALNGV	EMHIT	EGTQDET	348
NTDB id 1124 NGFG RS03960 WP 003688695.1	GAK	IGQSKDN	VRVWLKEN	PEISDE	IDAKI	RALNGV	EMHIT	EGTQDET	348
NTDB id 1123 OK783 RS03845 WP 003688695.1	GAK	IGQSKDN	VRVWLKEN	PEISDE	IDAKI	RALNGV	EMHIT	EGTQDET	348
NTDB id 1427 RS RS02760 WP 011000510.1	GER	IGQGRD	NCREFL	RENAEL	AREIEN	KVREHL	GVTPMGA	VTLA	352
NTDB id 1165 A1552VC RS01565 WP 000344154.1	GD	KIGQGS	KANACKY	LKENPEI	AKTLDK	KLREML	LNPNEMQ	LIAETSS	354
NTDB id 1142 GTF74 RS11550 WP 000344154.1	GD	KIGQGS	KANACKY	LKENPEI	AKTLDK	KLREML	LNPNEMQ	LIAETSS	354
NTDB id 1022 ACIAD RS06390 WP 004925639.1	GN	KIGQGS	KNNVIRY	LEENPQ	ISTEIE	AVIREQ	LLTKASDQ	TAA	349
NTDB id 1074 ABD1 RS10195 WP 000344167.1	GN	KIGQGS	KNNVIRY	FEENNQ	IAEEI	ERNIRE	QLLTTGTNG	AVQ	349
NTDB id 1205 PSJM300 05545 AFN77183.1	GS	KIGQGS	KANA	AKYLEEN	PEIGQ	IEEQ	IRAKLL	VTSANT	347
consensus		***!!!*****	**	*****	*****	**	**	*	

logo

		ELELEE	
NTDB id 600 KW2 RS01765 WP 011675413.1	.....		387
NTDB id 269 KZH43 RS08665 WP 001085462.1	ELEIEIEE		388
NTDB id 228 SPD RS09265 WP 001085462.1	ELEIEIEE		388
NTDB id 194 SPR RS08825 WP 001085462.1	ELEIEIEE		388
NTDB id 159 SP RS09750 WP 001085462.1	ELEIEIEE		388
NTDB id 499 SM12261 RS08315 WP 078228268.1	ELEIEIEE		384
NTDB id 527 SMSK321 RS11065 WP 001085454.1	ELEIEIEE		384
NTDB id 453 Spy49 1753c ACI62003.1	GIEIED..		378
NTDB id 408 SMU RS09530 WP 002262392.1	TIELED..		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 264842 Fsol RS01755 WP 108673184.1	.....		361
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			

-  non conserved
-  similar
-  ≥ 50% conserved