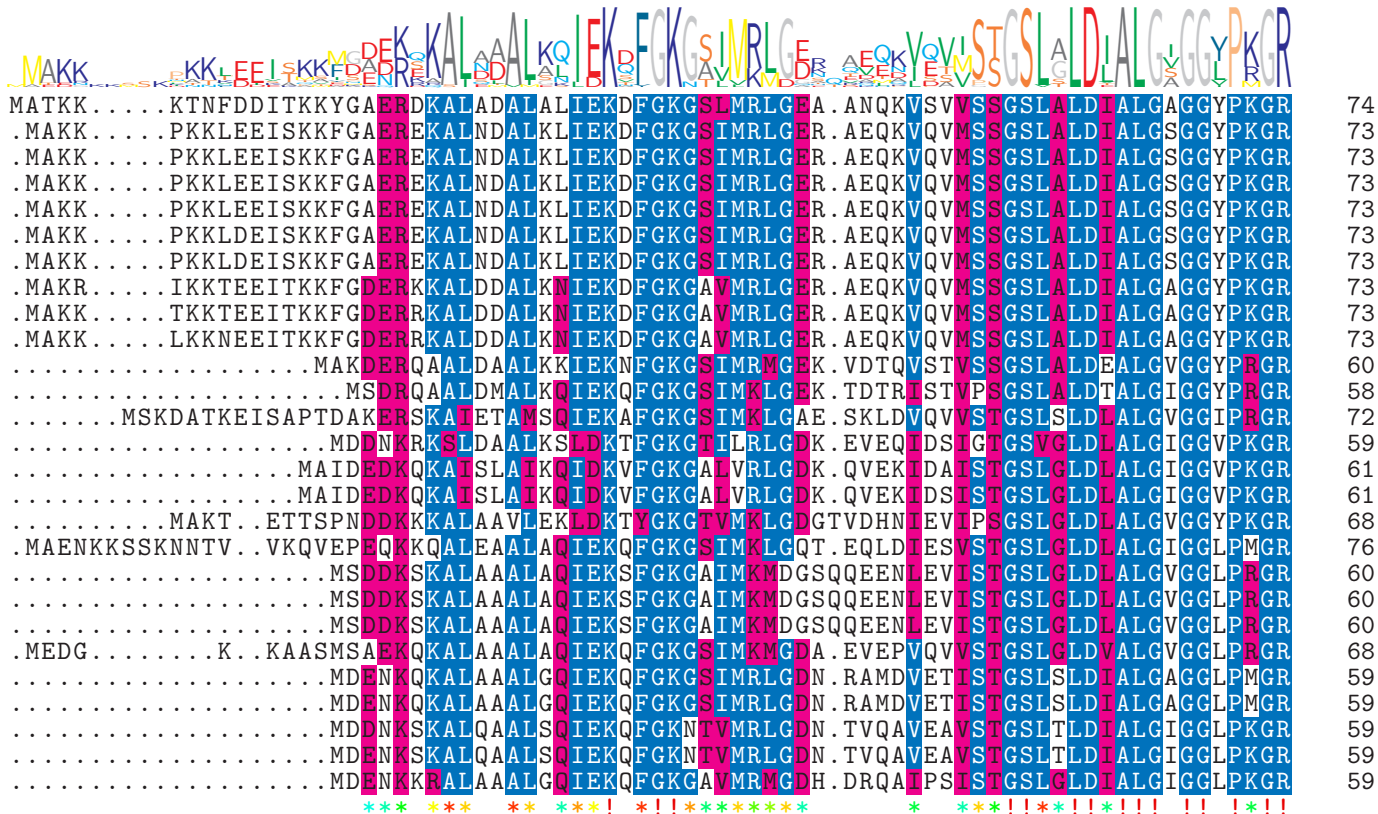


```

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 109762 ABXG87 RS00365 WP 002886327.1
NTDB id 453 Spy49 1753c ACI62003.1
NTDB id 625 LCA RS02525 WP 011374196.1
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 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 011000519.1
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

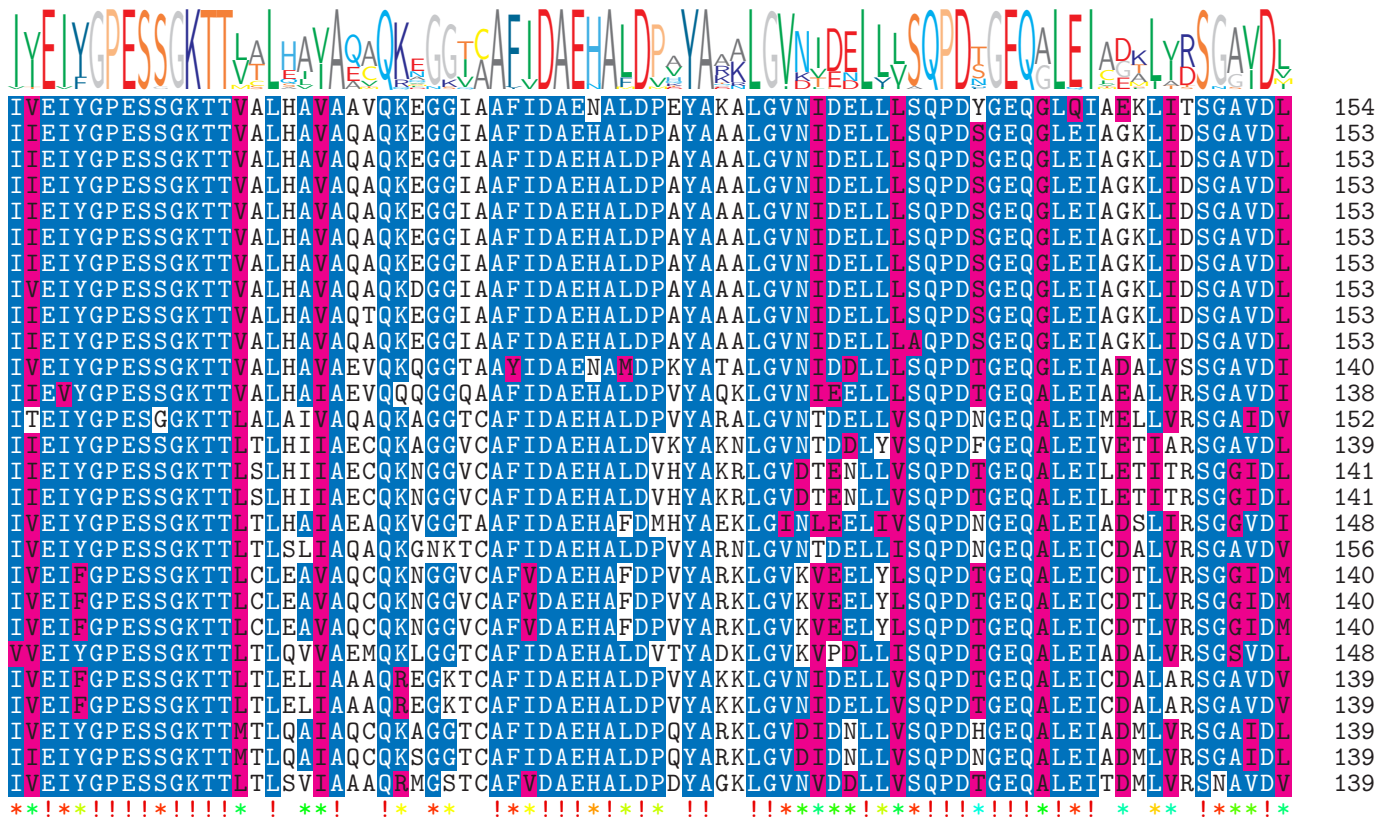
```



```

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 408 SMU RS09530 WP 002262392.1
NTDB id 109762 ABXG87 RS00365 WP 002886327.1
NTDB id 453 Spy49 1753c ACI62003.1
NTDB id 625 LCA RS02525 WP 011374196.1
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 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 011000519.1
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

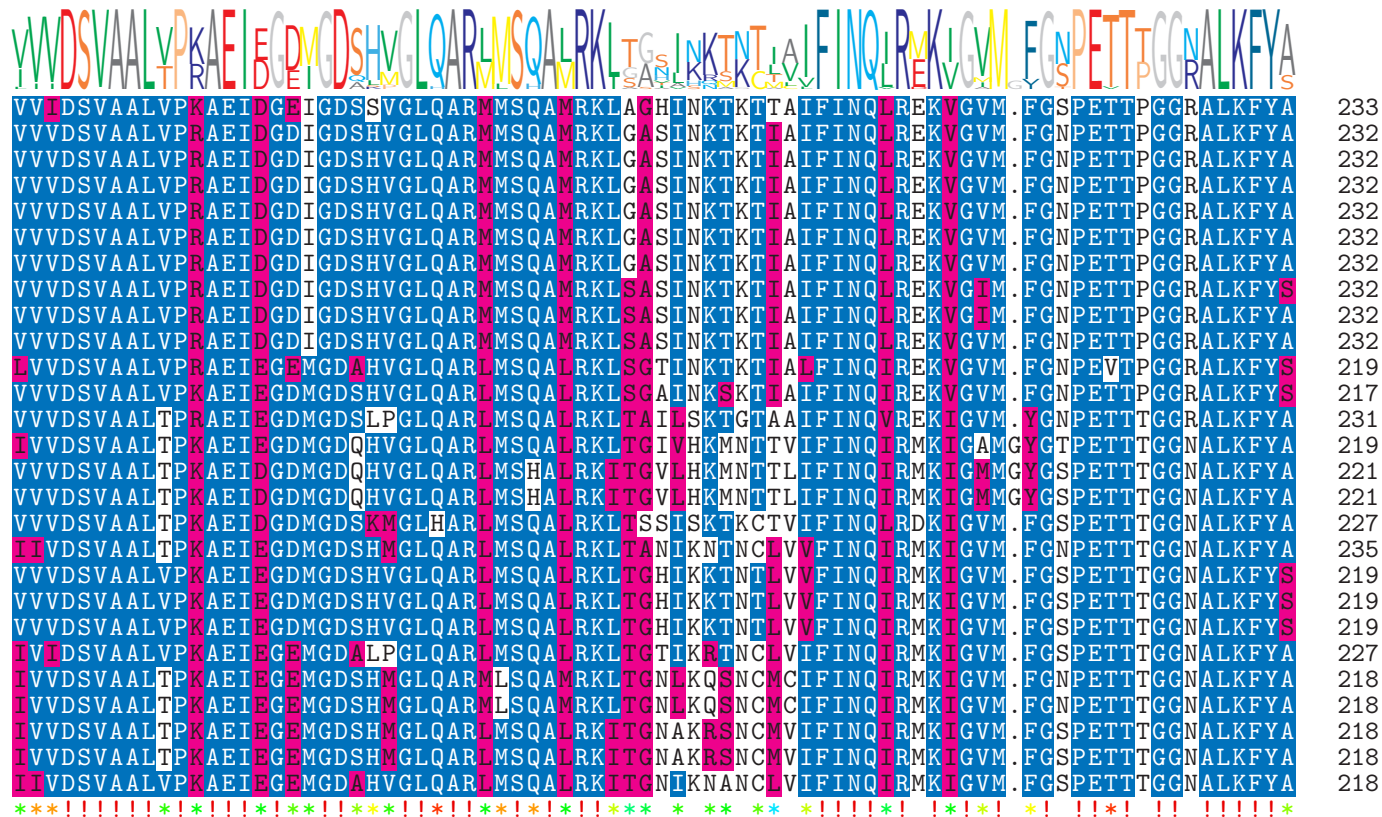
```



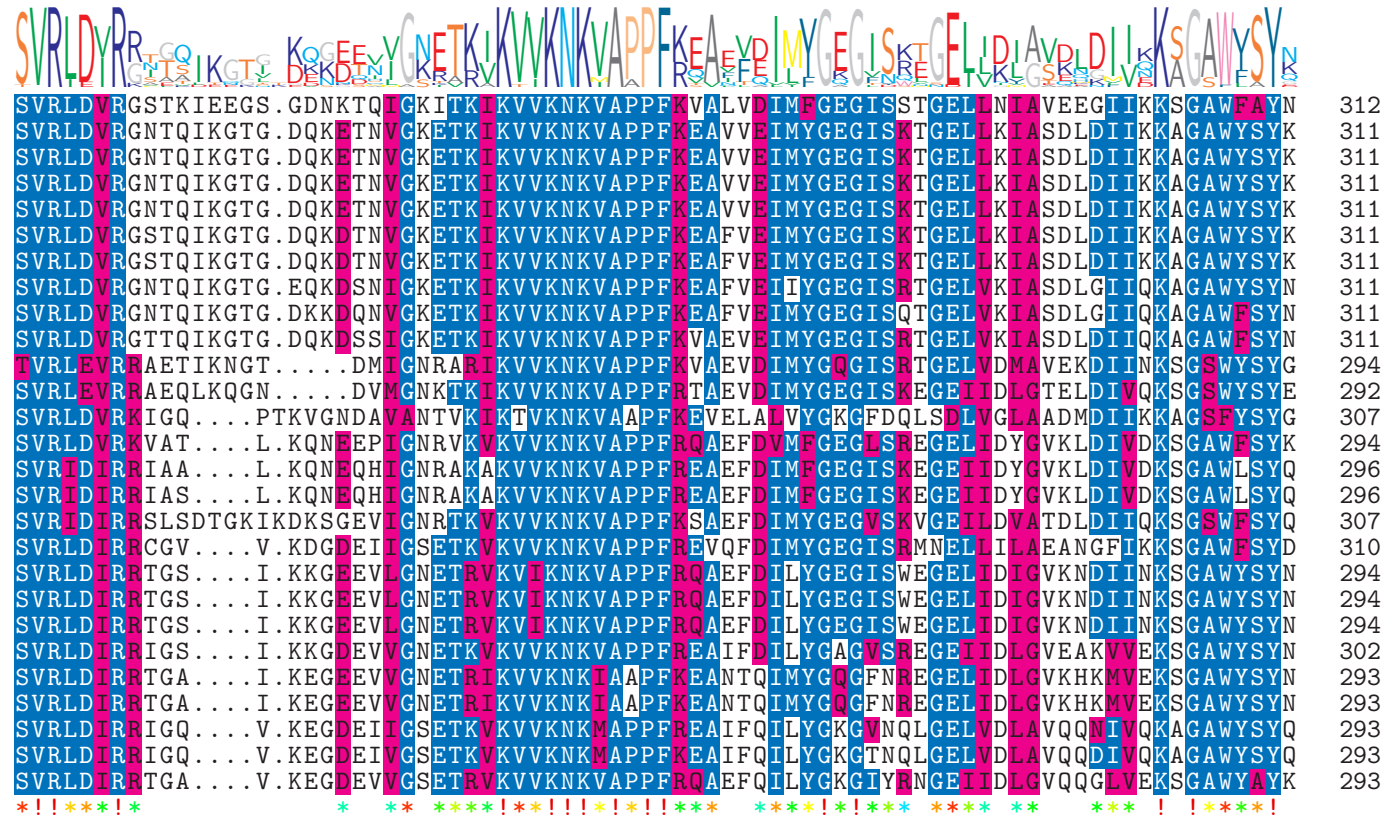
```

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 408 SMU RS09530 WP 002262392.1
NTDB id 109762 ABXG87 RS00365 WP 002886327.1
NTDB id 453 Spy49 1753c ACI62003.1
NTDB id 625 LCA RS02525 WP 011374196.1
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 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 011000519.1
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 408 SMU RS09530 WP 002262392.1
NTDB id 109762 ABXG87 RS00365 WP 002886327.1
NTDB id 453 Sca49 1753c ACI62003.1
NTDB id 625 LCA RS02525 WP 011374196.1
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 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	EKAKNYL	KEHQDV	FDEID	HKVRAAH	CLDDSEVAETEEETT	ASKTKAKAKK	EEKAVETE	EIELELED		387
NTDB id 269 KZH43 RS08665 WP 001085462.1	DEKIGQGS	ENAKKYL	LAEHPEI	FDEID	KQVRSKF	CLIDGEEVSEQD	TENKKDEPKK	EE..	AVNE	VPLDLGDELEIE	385
NTDB id 228 SPD RS09265 WP 001085462.1	DEKIGQGS	ENAKKYL	LAEHPEI	FDEID	KQVRSKF	CLIDGEEVSEQD	TENKKDEPKK	EE..	AVNE	VPLDLGDELEIE	385
NTDB id 194 SPR RS08825 WP 001085462.1	DEKIGQGS	ENAKKYL	LAEHPEI	FDEID	KQVRSKF	CLIDGEEVSEQD	TENKKDEPKK	EE..	AVNE	VPLDLGDELEIE	385
NTDB id 159 SP RS09750 WP 001085462.1	DEKIGQGS	ENAKKYL	LAEHPEI	FDEID	KQVRSKF	CLIDGEEVSEQD	TENKKDEPKK	EE..	AVNE	VPLDLGDELEIE	385
NTDB id 499 SM12261 RS08315 WP 078228268.1	DEKIGQGS	ENAKKYL	ADNPEI	FDEID	HQVRVQF	CLIDGEEIAES	...KKDEAAQ	VD..	SVNE	VTLDLGDELEIE	381
NTDB id 527 SMSK321 RS11065 WP 001085454.1	DEKIGQGS	ENAKKYL	ADNPEV	FAEID	HQVRVQF	CLIDGEEAAES	...KKDEVAQ	VD..	SVNE	VTLDLGDELEIE	381
NTDB id 408 SMU RS09530 WP 002262392.1	GEKIGQGS	ENAKKFL	ADNPEI	FDDID	HKVRVQY	CLIEEDNTEEKQ	SSKEKE...T...	DE..	KADKNL	VLELDDTIELE	382
NTDB id 109762 ABXG87 RS00365 WP 002886327.1	GEKIGQGS	ENAKKYL	ADHPD	IFEEID	HKVRVHY	CLIEPDEEDIVE	EAQ.....VE..	ETSD	FLVLDLDSTIEIE		378
NTDB id 453 Spy49 1753c ACI62003.1	GEKIGQGS	ENAKRYL	ADHPQL	FDEID	RKVRVKF	CLLEESEEEES	AMAV.....AS..	EETD	LALDLN	GIEIE	377
NTDB id 625 LCA RS02525 WP 011374196.1	SERIGQGS	ENAKNYL	ADHED	VEDEV	RLKVRAY	CLSDVPEEDLP	TEDE.QIN.....	ILPD	DSTEE		355
NTDB id 115 BSU 16940 NP 389576.2	EERIGQGS	ENAKQFL	KENKDI	MLMIQE	QIREHY	CLDNNGVVQQ	AEETQEELE.....	FE.E			348
NTDB id 1313 DR RS12030 WP 010888966.1	DERIGQGK	EKTIA	YIAERP	EMEQE	IRDRVMAA	TRAGNAGEAP	ALAPAPAAPEA.....	AEA			363
NTDB id 1245 Cj1673c YP 002345041.1	DKKIGQGS	ENAKSKA	ELKENPEI	ADEIT	KAIQNSM	TEGMI.....	SGSEDD..E.....	GEE			343
NTDB id 1214 NCTC11637 00359 SQJ03206.1	DKKIGQGS	ENAKALL	KEDKAL	ADEIT	LKIKESI	CSNEEI.....	MPLPDE..P.....	LEEM			347
NTDB id 1211 C694 RS00795 WP 000963128.1	DKKIGQGS	ENAKALL	KEDKAL	ADEIT	LKIKESI	CSNEEI.....	MPLPDE..P.....	LEEM			347
NTDB id 1334 RAOC RS04870 WP 004918236.1	DTKIGQGR	DNTVKEL	IKDNPEI	LAEELE	AKIREKL	QAK.....					343
NTDB id 1389 A4U84 RS07560 WP 021112712.1	GTKIGQGK	NNAVKWL	KENPEI	ADKLE	QEIRNTL	ASNPNS.....	VLKATASDS.....	NDES	DVEEF	SEEL...	372
NTDB id 1130 NGFG RS03960 WP 003688695.1	GAKIGQK	DNVRVWL	KENPEI	SDEID	AKIRALN	CVEMHI....	TEGTQDETD.....	GER.....	PEE		348
NTDB id 1124 NGFG RS03960 WP 003688695.1	GAKIGQK	DNVRVWL	KENPEI	SDEID	AKIRALN	CVEMHI....	TEGTQDETD.....	GER.....	PEE		348
NTDB id 1123 OK783 RS03845 WP 003688695.1	GAKIGQK	DNVRVWL	KENPEI	SDEID	AKIRALN	CVEMHI....	TEGTQDETD.....	GER.....	PEE		348
NTDB id 1427 RS RS02760 WP 011000510.1	GERIGQGR	DNCRE	ELRENAE	LAREI	ENKVRHL	CVTPMG....	AVTLA.EEV.....	EED			352
NTDB id 1165 A1552VC RS01565 WP 000344154.1	GDKIGQGS	KANACKYL	KENPEI	AKTLD	KKIREML	LNPNEM....	QLIAETSSA.....	ADDV	FGAV	PEEF....	354
NTDB id 1142 GTF74 RS11550 WP 000344154.1	GDKIGQGS	KANACKYL	KENPEI	AKTLD	KKIREML	LNPNEM....	QLIAETSSA.....	ADDV	FGAV	PEEF....	354
NTDB id 1022 ACIAD RS06390 WP 004925639.1	GNKIGQK	NNVIRY	LEENP	QISTE	IEAVIRE	QLLT	TKASD.....QTAA.HDET.....	EEEP	LL..ES		349
NTDB id 1074 ABD1 RS10195 WP 000344167.1	GNKIGQK	NNVIRY	FEENN	QIAFEI	ERNIRE	QLLT	TGTN....GAVQ.I.ED.....	EEEP	LL..LES		349
NTDB id 1205 PSJM300 05545 AFN77183.1	GSKIGQGS	KANAACKY	LEENPEI	GQEIE	QQIRAKLL	YTSAN....	TKATPVAED.....	LADA	I.....		347
consensus	***!!!	*****	**	*	***	*****	*	*	*	*	

logo

		↓EE	
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 109762 ABXG87 RS00365 WP 002886327.1	E..	379	
NTDB id 453 Spy49 1753c ACI62003.1	D..	378	
NTDB id 625 LCA RS02525 WP 011374196.1	...	355	
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 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 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