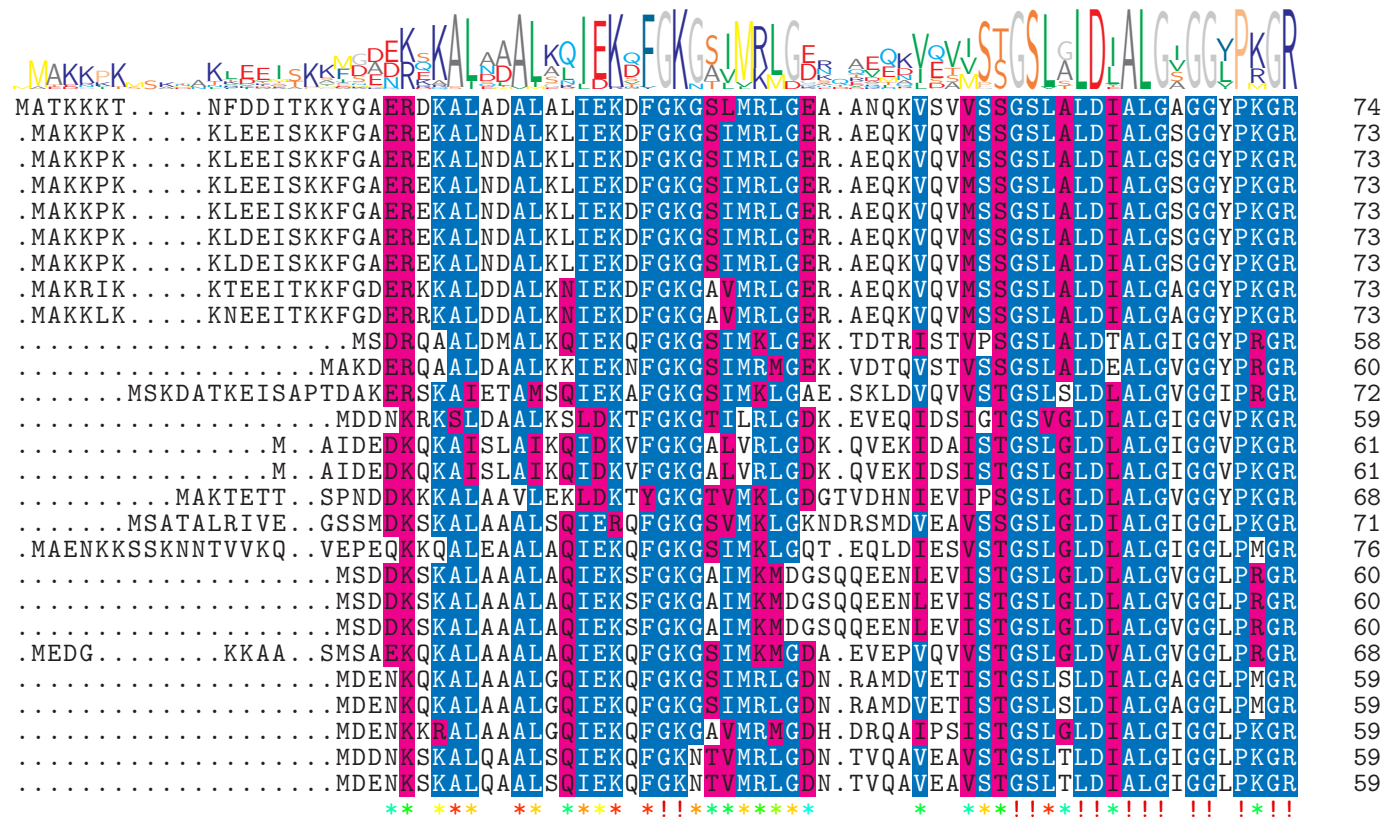


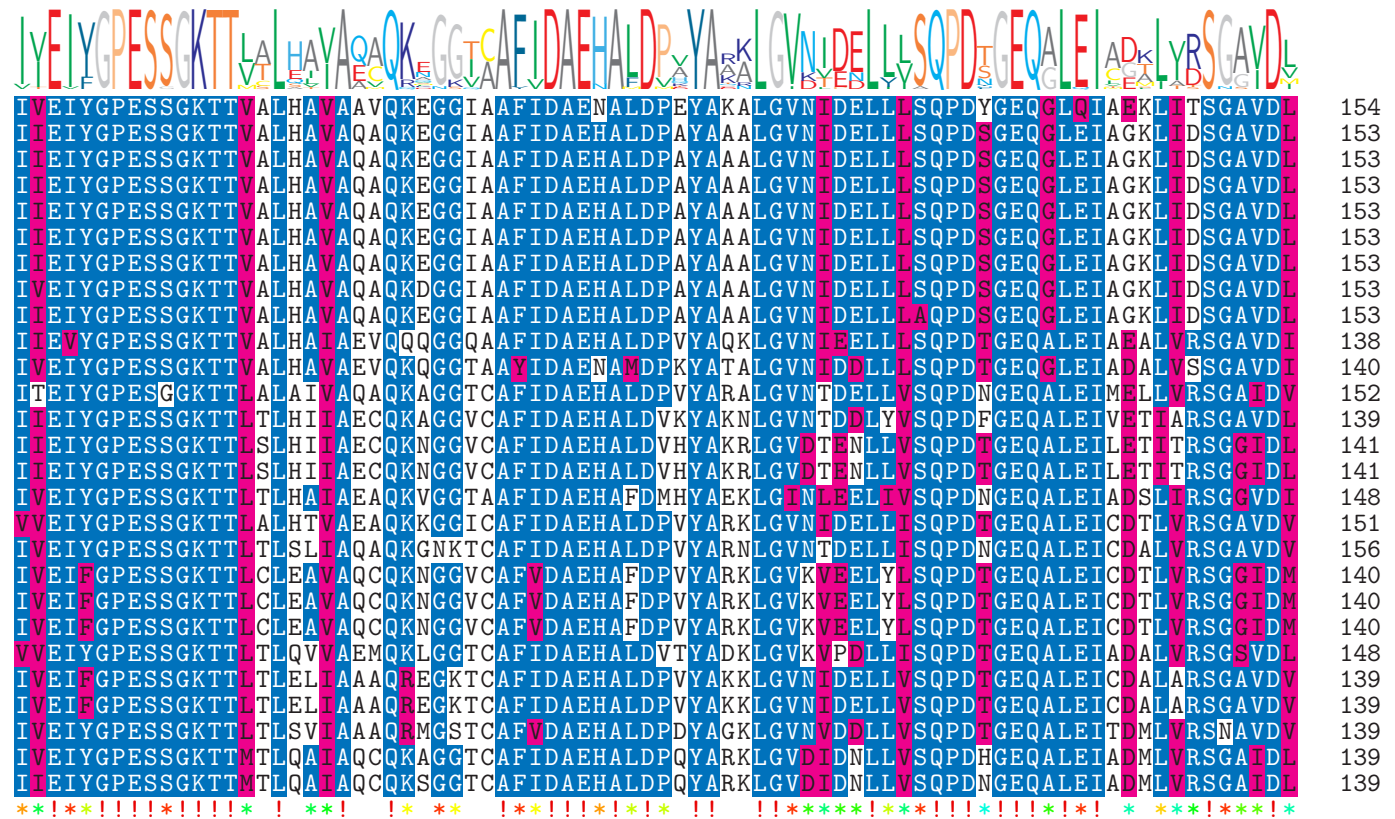
NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 269 KZH43 RS08665 WP 001085462.1
NTDB id 228 SPD RS09265 WP 001085462.1
NTDB id 194 SPR RS08825 WP 001085462.1
NTDB id 159 SP RS09750 WP 001085462.1
NTDB id 527 SMSK321 RS11065 WP 001085454.1
NTDB id 499 SM12261 RS08315 WP 078228268.1
NTDB id 408 SMU RS09530 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 79027 H7K75 RS31750 WP 011088499.1
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



```

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 527 SMSK321 RS11065 WP 001085454.1
NTDB id 499 SM12261 RS08315 WP 078228268.1
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 79027 H7K75 RS31750 WP 011088499.1
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

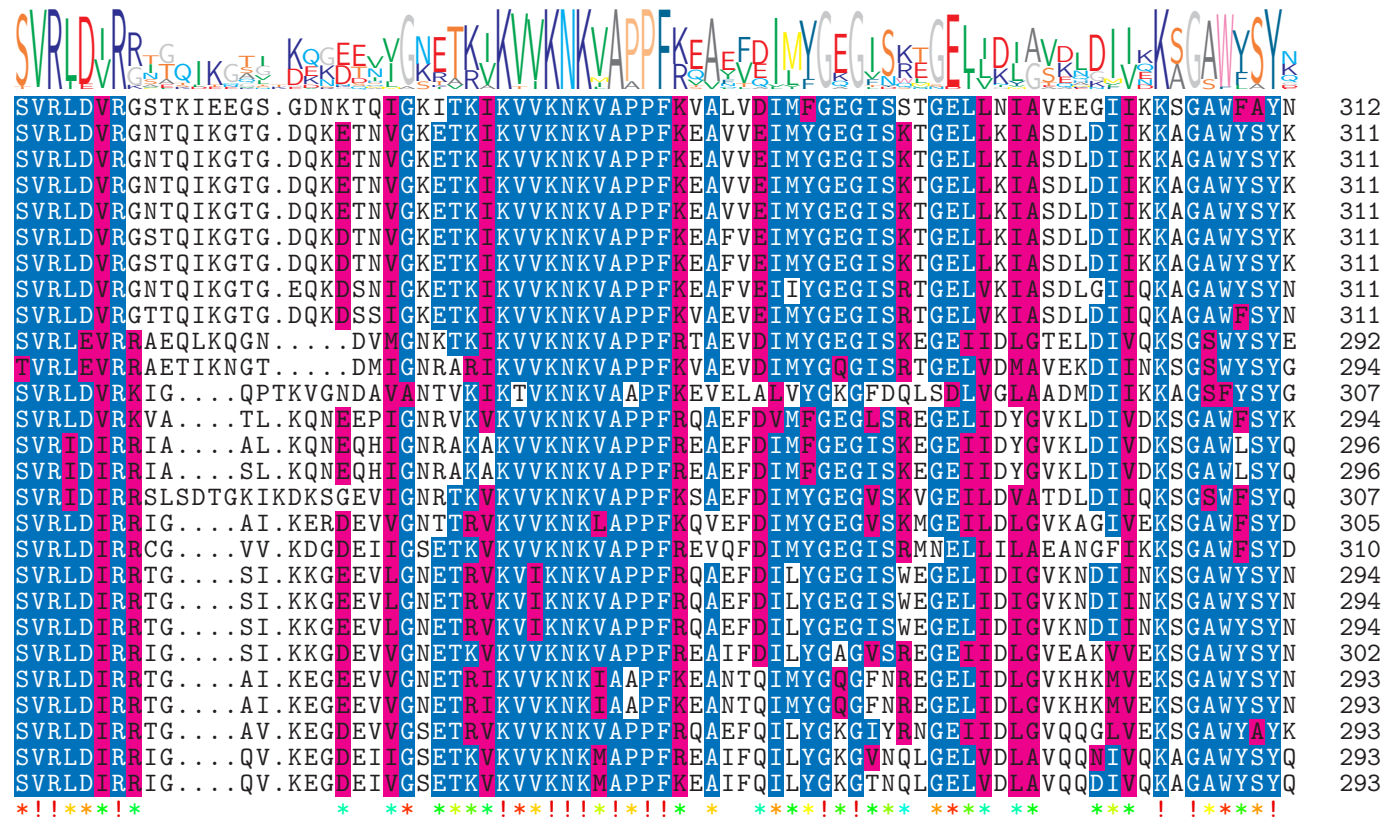
```




```

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 527 SMSK321 RS11065 WP 001085454.1
NTDB id 499 SM12261 RS08315 WP 078228268.1
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 79027 H7K75 RS31750 WP 011088499.1
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 600 KW2 RS01765 WP 011675413.1	DEKIGQGA	EKAKNYLKEHQDV	DEIDHKVRAAHG	LDDSEVAETE	EETTAS	TKAKAKKEEK	AVETEE	IELELED	387
NTDB id 269 KZH43 RS08665 WP 001085462.1	DEKIGQGS	ENAKKYLAEHPEIF	DEIDKQVRSKF	GLIDGEEVSEQD	TENKK	DE....PKKEEA	..VNEEVPLDLGD		380
NTDB id 228 SPD RS09265 WP 001085462.1	DEKIGQGS	ENAKKYLAEHPEIF	DEIDKQVRSKF	GLIDGEEVSEQD	TENKK	DE....PKKEEA	..VNEEVPLDLGD		380
NTDB id 194 SPR RS08825 WP 001085462.1	DEKIGQGS	ENAKKYLAEHPEIF	DEIDKQVRSKF	GLIDGEEVSEQD	TENKK	DE....PKKEEA	..VNEEVPLDLGD		380
NTDB id 159 SP RS09750 WP 001085462.1	DEKIGQGS	ENAKKYLAEHPEIF	DEIDKQVRSKF	GLIDGEEVSEQD	TENKK	DE....PKKEEA	..VNEEVPLDLGD		380
NTDB id 527 SMSK321 RS11065 WP 001085454.1	DEKIGQGS	ENAKKYLAADNPEV	FAEIDHQVRVQF	GLIDGEEAAE	SKK	DE....VAQVDS	..VNEEVTLDLGD		376
NTDB id 499 SM12261 RS08315 WP 078228268.1	DEKIGQGS	ENAKKYLAADNPEIF	DEIDHQVRVQF	GLIDGEEIAE	SKK	DE....AAQVDS	..VNEEVTLDLGD		376
NTDB id 408 SMU RS09530 WP 002262392.1	GEKIGQGS	ENAKKFLADNPEIF	DDIDHKVVRVQY	GLIEEDNTEEKQ	SSKEK	ETDEK	..ADKNLVLELDD		377
NTDB id 453 Spy49 1753c ACI62003.1	GEKIGQGS	ENAKRYLADHPQLF	DEIDRKVRVKF	GLLEESEESAM	AVASE	E	TDDLALDLDN		372
NTDB id 115 BSU 16940 NP 389576.2	EERLGGG	RENAKQFLKENK	DIIMLIQE	QIREHYGL	DNNGVVQQA	EETQE	EL.EFE.E		348
NTDB id 625 LCA RS02525 WP 011374196.1	SERIGQG	RENAKNYLADHED	VEDEVRLKVRAAY	GISDVP	PEEDLPT	TEDE	.QI.NILPDDST	EE	355
NTDB id 1313 DR RS12030 WP 010888966.1	DERIGQG	KEKTIAYIAER	PEMEQEIRDR	MAAIRAGNAGE	APALAPAPAA	PEAAE.A			363
NTDB id 1245 Cj1673c YP 002345041.1	DKKLGGG	RENSKAF	LKENPEIA	DEITKAIQNS	MGIEGMIS	GSED	..DEGEE		343
NTDB id 1214 NCTC11637 00359 SQJ03206.1	DKKLGGG	RENAKALLKED	KALADEITLK	IKESIGS	NNEEIM	PLPD	..EPLEE	ME	347
NTDB id 1211 C694 RS00795 WP 000963128.1	DKKLGGG	RENAKALLKED	KALADEITLK	IKESIGS	NNEEIM	PLPD	..EPLEE	ME	347
NTDB id 1334 RAOC RS04870 WP 004918236.1	DTKLGGG	RDITVKELIK	DNPELAE	ELEAKIREKL	QAK				343
NTDB id 79027 H7K75 RS31750 WP 011088499.1	SQRLGGG	RENSKAF	LKANPDITAK	IETAIRQNS	GLIAEQI	LAGT	PERD...A.D.GEE	PADE	362
NTDB id 1389 A4U84 RS07560 WP 021112712.1	GTKIGQG	KNNAVKWLKEN	PEIADKLE	QEIRNTLAS	NPNSV	LKATAS	DSNDES	..DVEEF	372
NTDB id 1130 NGFG RS03960 WP 003688695.1	GAKIGQG	KDNVRVWLKEN	PEISDEIDA	KIRALNG	VEMHIT	EGT	QDE	..TDGER	348
NTDB id 1124 NGFG RS03960 WP 003688695.1	GAKIGQG	KDNVRVWLKEN	PEISDEIDA	KIRALNG	VEMHIT	EGT	QDE	..TDGER	348
NTDB id 1123 OK783 RS03845 WP 003688695.1	GAKIGQG	KDNVRVWLKEN	PEISDEIDA	KIRALNG	VEMHIT	EGT	QDE	..TDGER	348
NTDB id 1427 RS RS02760 WP 011000510.1	GERIGQG	RDNCREF	LRENAELARE	EIENKVREHL	GVTPMGA	V.TLAE	EVEED		352
NTDB id 1165 A1552VC RS01565 WP 000344154.1	GDKIGQG	KANACKY	LKENPEIA	AKTLDKKL	REMLLN	PENMQ	LIAETSSA	ADDV.EFGAV	354
NTDB id 1142 GTF74 RS11550 WP 000344154.1	GDKIGQG	KANACKY	LKENPEIA	AKTLDKKL	REMLLN	PENMQ	LIAETSSA	ADDV.EFGAV	354
NTDB id 1205 PSJM300 05545 AFN77183.1	GSKIGQG	KANAACKYLEEN	PEIGQE	IEQQIRAKLL	VSANT	KATP	VAEDLADA	..DI	347
NTDB id 1022 ACIAD RS06390 WP 004925639.1	GNKIGQG	KNNVIRY	LEENPQISTE	IEAVIREQL	LTKASDQ	TAA	..HDETEEP	..DLL	349
NTDB id 1074 ABD1 RS10195 WP 000344167.1	GNKIGQG	KNNVIRY	FEENNQIAE	EIERNIREQL	LTTGTNG	AVQ	..I.EDEEP	..DLL	349
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 527 SMSK321 RS11065 WP 001085454.1	ELEIEIEE		384
NTDB id 499 SM12261 RS08315 WP 078228268.1	ELEIEIEE		384
NTDB id 408 SMU RS09530 WP 002262392.1	TIELED..		383
NTDB id 453 Spy49 1753c ACI62003.1	GIEIED..		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 79027 H7K75 RS31750 WP 011088499.1	.....		362
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