

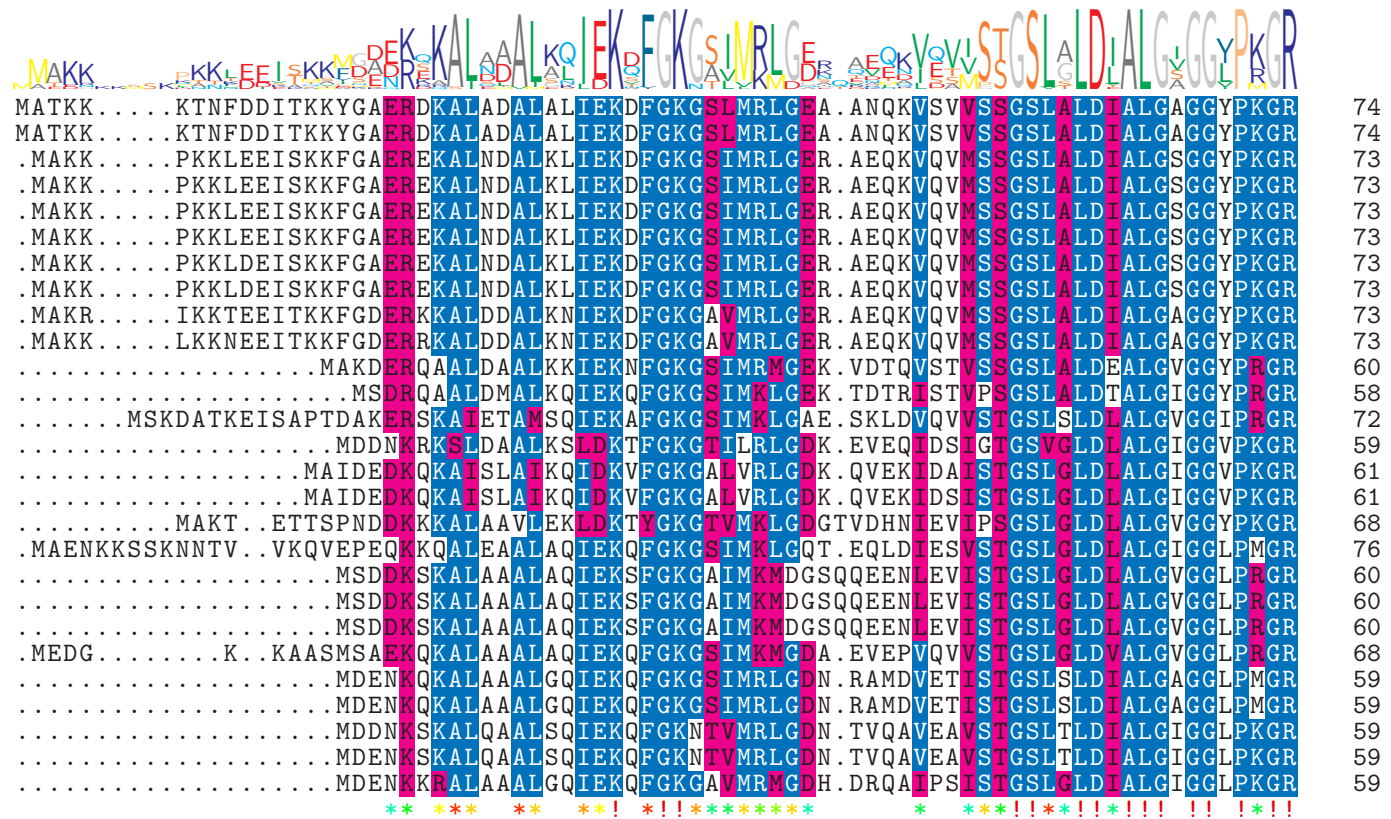
logo

```

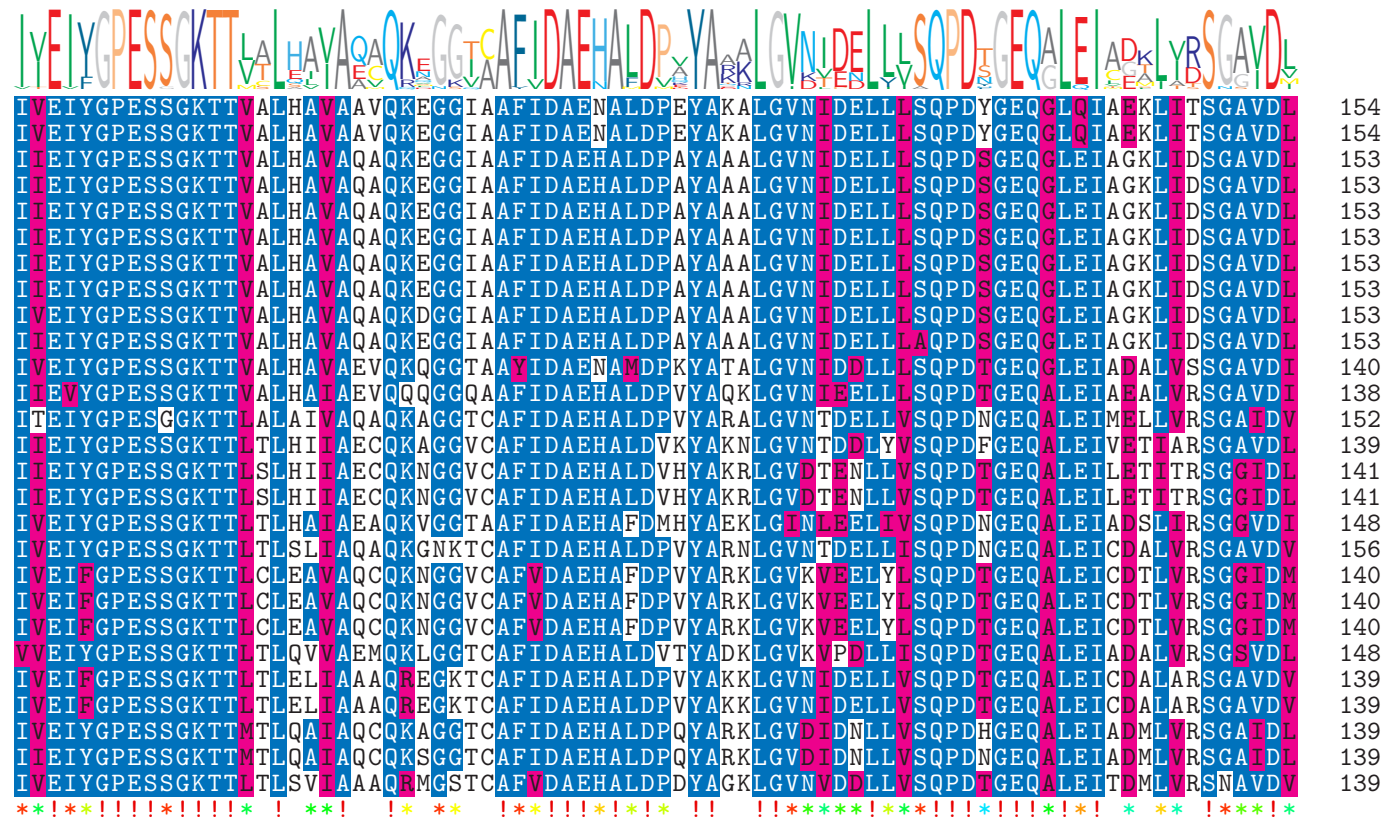
NTDB id 126418 NCD02118 RS02085 WP 012897202.1
NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 269 KZH43 RS08665 WP 001085462.1
NTDB id 228 SPD RS09265 WP 001085462.1
NTDB id 194 SPR RS08825 WP 001085462.1
NTDB id 159 SP RS09750 WP 001085462.1
NTDB id 499 SM12261 RS08315 WP 078228268.1
NTDB id 527 SMSK321 RS11065 WP 001085454.1
NTDB id 408 SMU RS09530 WP 002262392.1
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 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 QK783 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



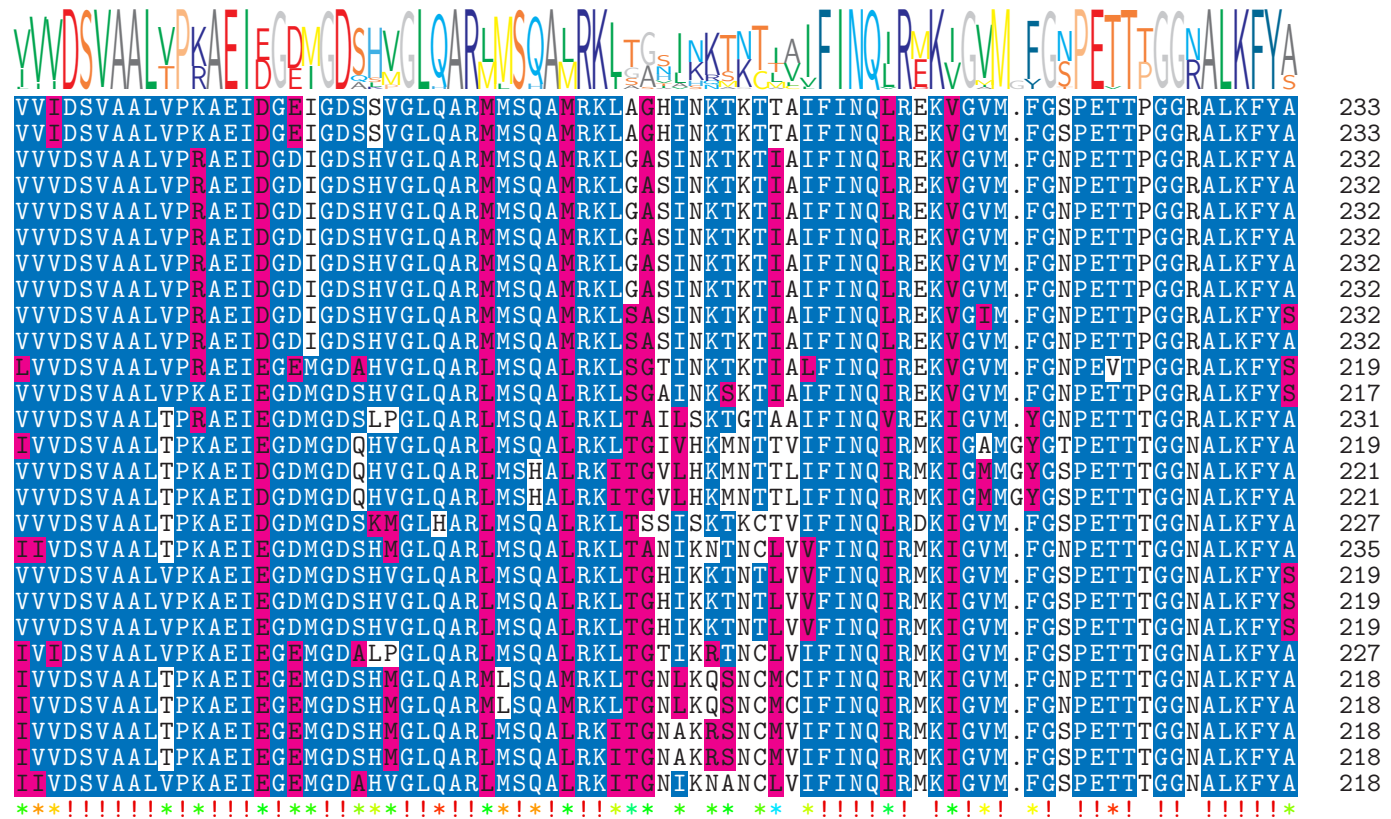
NTDB id 126418 NCD02118 RS02085 WP 012897202.1
NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 269 KZH43 RS08665 WP 001085462.1
NTDB id 228 SPD RS09265 WP 001085462.1
NTDB id 194 SPR RS08825 WP 001085462.1
NTDB id 159 SP RS09750 WP 001085462.1
NTDB id 499 SM12261 RS08315 WP 078228268.1
NTDB id 527 SMSK321 RS11065 WP 001085454.1
NTDB id 408 SMU RS09530 WP 002262392.1
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 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



```

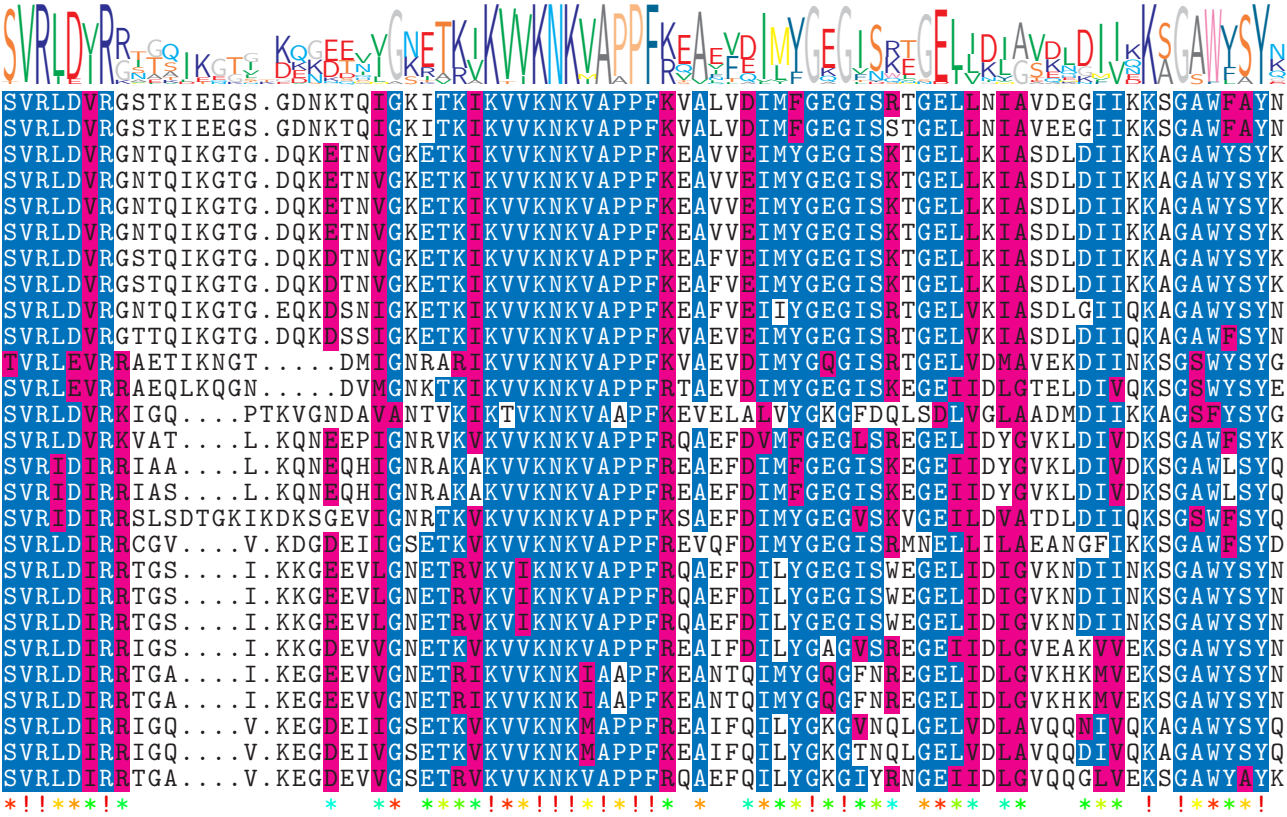
NTDB id 126418 NCD02118 RS02085 WP 012897202.1
NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 269 KZH43 RS08665 WP 001085462.1
NTDB id 228 SPD RS09265 WP 001085462.1
NTDB id 194 SPR RS08825 WP 001085462.1
NTDB id 159 SP RS09750 WP 001085462.1
NTDB id 499 SM12261 RS08315 WP 078228268.1
NTDB id 527 SMSK321 RS11065 WP 001085454.1
NTDB id 408 SMU RS09530 WP 002262392.1
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 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 QK783 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

```



logo

NTDB id 126418 NCD02118 RS02085 WP 012897202.1
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 408 SMU RS09530 WP 002262392.1
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 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



312
312
311
311
311
311
311
311
311
311
311
311
311
311
311
294
292
307
294
296
296
307
310
294
294
294
302
293
293
293
293
293

NTDB id 126418 NCD02118 RS02085 WP 012897202.1
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 408 SMU RS09530 WP 002262392.1
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 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

DEKIGQGA	KEVAKKY	LENPEI	DEID	KYR	E	CG	LP	EV	E	T	CP	EP	EE	EE	KKEEAV	NEEV	LD	LED						
DEKIGQGA	EAKK	NYLKEH	QEI	FDEI	DHKV	RAAH	GL	LD	EAEV	VETT	....	EDT	STK	AKAT	KA	KKEE	KVV	ETEE	IELE	LED	387			
DEKIGQGA	EAKK	NYLKEH	QV	FDEI	DHKV	RAAH	GL	LD	DSEV	EAETE	....	EET	TASK	TAKA	KA	KKEE	KAV	ETEE	IELE	LED	387			
DEKIGQGS	ENAKK	YLAEH	PEI	FDEI	DKVR	SKFG	GL	ID	GEEV	SEQD		TEN	KK	DEP	...	KKEE	AV	..	NEEV	PLDL	LDG	380		
DEKIGQGS	ENAKK	YLAEH	PEI	FDEI	DKVR	SKFG	GL	ID	GEEV	SEQD		TEN	KK	DEP	...	KKEE	AV	..	NEEV	PLDL	LDG	380		
DEKIGQGS	ENAKK	YLAEH	PEI	FDEI	DKVR	SKFG	GL	ID	GEEV	SEQD		TEN	KK	DEP	...	KKEE	AV	..	NEEV	PLDL	LDG	380		
DEKIGQGS	ENAKK	YLAEH	PEI	FDEI	DKVR	SKFG	GL	ID	GEEV	SEQD		TEN	KK	DEP	...	KKEE	AV	..	NEEV	PLDL	LDG	380		
DEKIGQGS	ENAKK	YLADN	PEI	FDEI	DHQR	VRVQ	FG	ID	GEEA	IAS	....	KK	DEA	...	AQV	DSV	..	NEEV	TLDL	LDG	376			
DEKIGQGS	ENAKK	YLADN	PEV	FAEI	DHQR	VRVQ	FG	ID	GEEA	AES	....	KK	DEV	...	AQV	DSV	..	NEEV	TLDL	LDG	376			
GEKIGQGS	ENAKK	FLADN	PEI	FD	DHQR	VRVQ	GL	IE	EDN	TEEK	Q		SS	KEK	...	ET	DE	KA	..	DKNL	VL	EL	LD	377
GEKIGQGS	ENAKR	YLADH	PQL	FDEI	DRKV	RVKFG	GL	EE	SEEE	ESAM	....	AV	ASE	...	E	...	TDD	LAL	DL	LDN	372			
SERIGQGS	RENAK	NYLADH	ED	VEDE	VR	LKV	RAAY	GISD	VPEE	DLPT	....	TE	DE	..	QIN	IL	...	PDD	351					
EERLGG	RENAK	QFLK	ENK	DI	MLMI	QE	QI	REHY	GL	DNNG	VV	QQQA	....	EET	QE	LE	FE	...	E	348				
DERIGGG	KEKTI	AIAYIA	ER	PEME	QET	DR	VM	MAAI	RAGN	AGEA	PAL	APAPA	AA	PEA	AAEA	...	363							
DKKLGG	GRENS	KAF	LKEN	PEI	ADEI	TKAI	QNSM	G	EGMI	....	SG	SEDD	..	EGE	...	343								
DKKLGG	GRENA	KALL	KED	KAL	ADEI	TLK	KIKES	IG	SNEEI	....	MPL	PDE	..	PLE	ME	...	347							
DKKLGG	GRENA	KALL	KED	KAL	ADEI	TLK	KIKES	IG	SNEEI	....	MPL	PDE	..	PLE	ME	...	347							
DTKLGG	GRD	TVKELI	KDN	PEL	AEE	LA	EAKI	REKL	QAK	...	343													
GKIGQG	KNN	AVK	LKEN	PEI	AD	KL	QE	IR	N	TLAS	NPNS	....	VL	KAT	ASD	SND	ESD	VEEF	...	SEE	370			
GAKIGQG	KDN	VRV	LKEN	PEI	S	DEI	DAK	IR	AL	NG	VEMHI	....	TE	GT	QDE	T	DGER	...	PEE	348				
GAKIGQG	KDN	VRV	LKEN	PEI	S	DEI	DAK	IR	AL	NG	VEMHI	....	TE	GT	QDE	T	DGER	...	PEE	348				
GAKIGQG	KDN	VRV	LKEN	PEI	S	DEI	DAK	IR	AL	NG	VEMHI	....	TE	GT	QDE	T	DGER	...	PEE	348				
GERIGGR	DN	CREFL	RENA	E	L	AREI	ENK	VREHL	G	VT	PMG	....	AV	T	LA	..	EEVE	ED	...	352				
GDKIGQG	KAN	ACK	YLKEN	PEI	AKT	LD	KKI	REML	LN	PENM	....	QL	IAET	SSA	ADD	VE	F	GAV	...					

logo

		EELEE	
NTDB id 126418 NCD02118 RS02085 WP 012897202.1	.....	387	
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 408 SMU RS09530 WP 002262392.1	TIELED..	383	
NTDB id 453 Spy49 1753c ACI62003.1	GIEIED..	378	
NTDB id 625 LCA RS02525 WP 011374196.1	STEE....	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 RAOC RS04870 WP 004918236.1	.....	343	
NTDB id 1389 A4U84 RS07560 WP 021112712.1	EL.....	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	F.....	354	
NTDB id 1142 GTF74 RS11550 WP 000344154.1	F.....	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