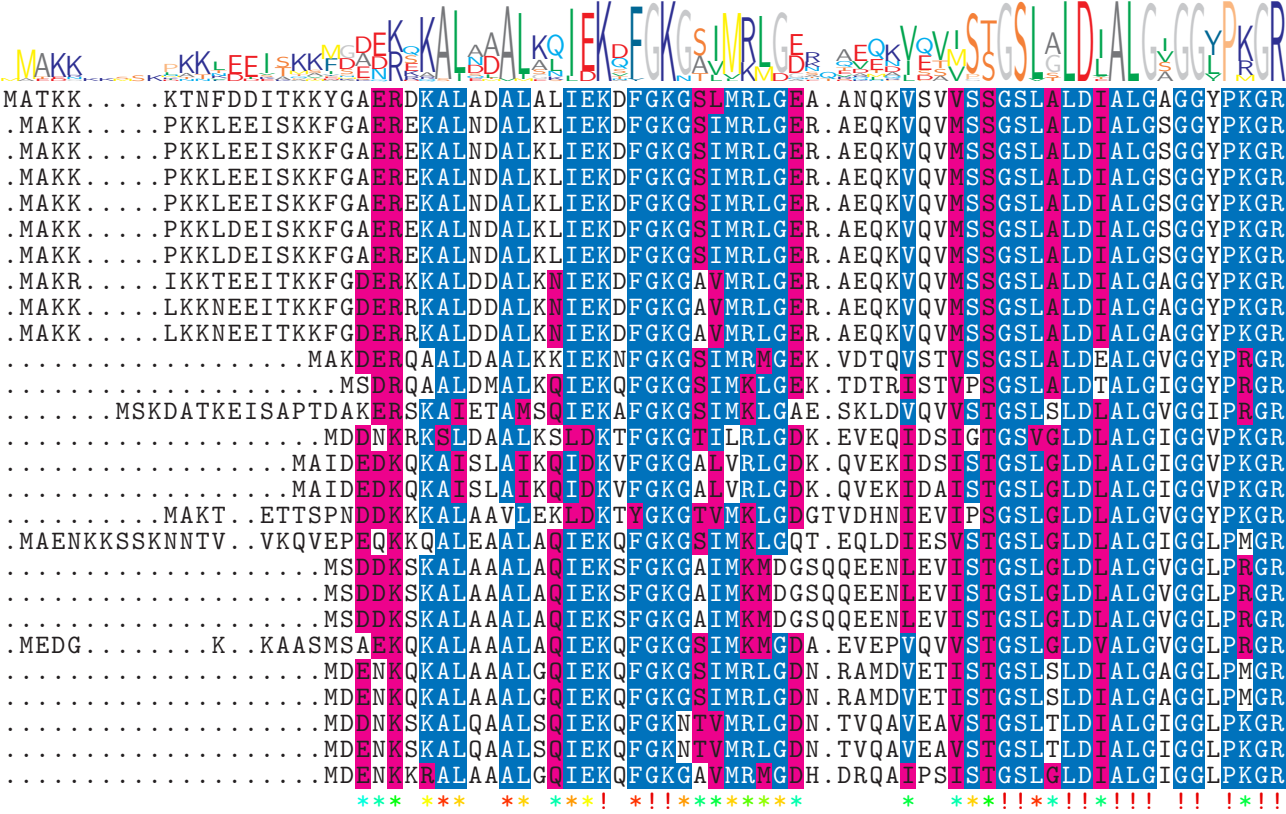


logo

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 408 SMU RS09530 WP 002262392.1
NTDB id 1142855 DQL26 RS08500 WP 023612576.1
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 1211 C694 RS00795 WP 000963128.1
NTDB id 1214 NCTC11637 00359 SQJ03206.1
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

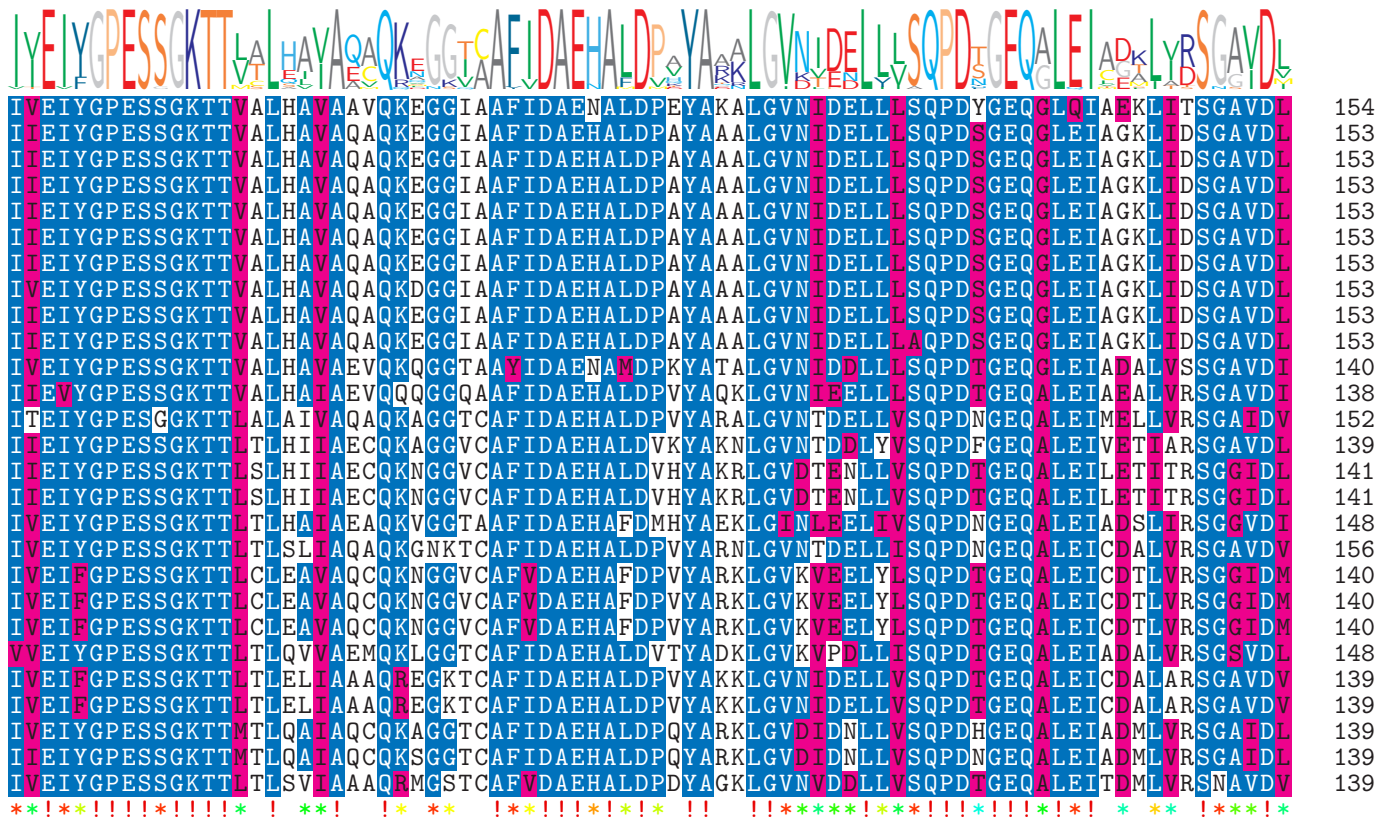


74
73
73
73
73
73
73
73
73
73
73
60
58
72
59
61
61
68
76
60
60
60
68
59
59
59
59
59

```

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 1142855 DQL26 RS08500 WP 023612576.1
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 1211 C694 RS00795 WP 000963128.1
NTDB id 1214 NCTC11637 00359 SQJ03206.1
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 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 1142855 DQL26 RS08500 WP 023612576.1
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 1211 C694 RS00795 WP 000963128.1
NTDB id 1214 NCTC11637 00359 SQJ03206.1
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

```



logo

NTDB id 600 KW2 RS01765 WP 011675413.1	SVRLDVRG	STKIEEGS	.GDNKTQ	IKITK	KVVKNKVAPPF	KVALVD	IMF	GEGIS	STGELL	NIA	VEEG	TIKK	SGAW	FAYN	312					
NTDB id 269 KZH43 RS08665 WP 001085462.1	SVRLDVRG	NTQIKGTG	.DQKE	TNV	GKETK	KVVKNKVAPPF	KEAVVE	IMY	GEGIS	KTGELL	KIASD	LIIKK	GAWYSY	K	311					
NTDB id 228 SPD RS09265 WP 001085462.1	SVRLDVRG	NTQIKGTG	.DQKE	TNV	GKETK	KVVKNKVAPPF	KEAVVE	IMY	GEGIS	KTGELL	KIASD	LIIKK	GAWYSY	K	311					
NTDB id 194 SPR RS08825 WP 001085462.1	SVRLDVRG	NTQIKGTG	.DQKE	TNV	GKETK	KVVKNKVAPPF	KEAVVE	IMY	GEGIS	KTGELL	KIASD	LIIKK	GAWYSY	K	311					
NTDB id 159 SP RS09750 WP 001085462.1	SVRLDVRG	NTQIKGTG	.DQKE	TNV	GKETK	KVVKNKVAPPF	KEAVVE	IMY	GEGIS	KTGELL	KIASD	LIIKK	GAWYSY	K	311					
NTDB id 499 SM12261 RS08315 WP 078228268.1	SVRLDVRG	STQIKGTG	.DQKD	TNV	GKETK	KVVKNKVAPPF	KEAFVE	IMY	GEGIS	KTGELL	KIASD	LIIKK	GAWYSY	K	311					
NTDB id 527 SMSK321 RS11065 WP 001085454.1	SVRLDVRG	STQIKGTG	.DQKD	TNV	GKETK	KVVKNKVAPPF	KEAFVE	IMY	GEGIS	KTGELL	KIASD	LIIKK	GAWYSY	K	311					
NTDB id 408 SMU RS09530 WP 002262392.1	SVRLDVRG	NTQIKGTG	.EQKD	SN	GKETK	KVVKNKVAPPF	KEAFVE	ILY	GEGIS	RTGEL	VKIASD	LGI	IQKAGAWYSY	N	311					
NTDB id 1142855 DQL26 RS08500 WP 023612576.1	SVRLDVRG	TTQIKGTG	.DQKD	SSI	GKETK	KVVKNKVAPPF	KVAEVE	IMY	GEGIS	RTGEL	VKIASD	LII	QKAGAWFSYN	311						
NTDB id 453 Spy49 1753c ACI62003.1	SVRLDVRG	TTQIKGTG	.DQKD	SSI	GKETK	KVVKNKVAPPF	KVAEVE	IMY	GEGIS	RTGEL	VKIASD	LII	QKAGAWFSYN	311						
NTDB id 625 LCA RS02525 WP 011374196.1	TVRLEVR	RAETIKNGT	DM	ICNR	ARI	KVVKNKVAPPF	KVAEVD	IMY	G	GISRT	GEL	VDMAVEK	DIINKSGSWYSY	294						
NTDB id 115 BSU 16940 NP 389576.2	SVRLEVR	RAEQLKQGN	DV	MCNK	TK	KVVKNKVAPPF	RTAEVD	IMY	GEGIS	KEGE	IIDLG	TELDI	VQKSGSWYSY	292						
NTDB id 1313 DR RS12030 WP 010888966.1	SVRLDVR	KIGQ	PTKV	GND	AVANT	VKIK	TVKNKVA	APFKE	VELAL	VYCK	GFDQL	SDLV	GLAADMDI	IKKAGSFYSY	307					
NTDB id 1245 Cj1673c YP 002345041.1	SVRLDVR	KKVAT	L	KQNE	EPIC	NRV	KV	KVVKNKVAPPF	FRQAEF	DVME	GEG	LSRE	GEL	IDYGV	KLDIVDKSGAWFSY	294				
NTDB id 1211 C694 RS00795 WP 000963128.1	SVRDIR	RIAS	L	KQNE	QHIC	NR	AK	KVVKNKVAPPF	FRBAEF	DIMF	GEGIS	KEGE	IIDYGV	KLDIVDKSGAWLSY	296					
NTDB id 1214 NCTC11637 00359 SQJ03206.1	SVRDIR	RIIAA	L	KQNE	QHIC	NR	AK	KVVKNKVAPPF	FRBAEF	DIMF	GEGIS	KEGE	IIDYGV	KLDIVDKSGAWLSY	296					
NTDB id 1334 RA0C RS04870 WP 004918236.1	SVRDIR	RSLSDTG	KIKDKSGE	IVIC	NR	TKV	KVVKNKVAPPF	KS	AEFD	IMY	GEG	VSKV	GEILD	VATDL	DIQKSGSWFSY	307				
NTDB id 1389 A4U84 RS07560 WP 021112712.1	SVRLDIR	RCGV	V	KDGE	IEIG	SETK	VVVKNKVAPPF	REV	QFD	IMY	GEGIS	RMNEL	LILAE	ANGFI	KKSGAWFSYD	310				
NTDB id 1130 NGFG RS03960 WP 003688695.1	SVRLDIR	RTGS	I	KKGE	EVLC	NETR	VKV	IKNKVAPPF	RQAEF	DILY	GEGIS	WE	GEL	IDIGV	KN	DIINKSGAWYSY	294			
NTDB id 1124 NGFG RS03960 WP 003688695.1	SVRLDIR	RTGS	I	KKGE	EVLC	NETR	VKV	IKNKVAPPF	RQAEF	DILY	GEGIS	WE	GEL	IDIGV	KN	DIINKSGAWYSY	294			
NTDB id 1123 OK783 RS03845 WP 003688695.1	SVRLDIR	RTGS	I	KKGE	EVLC	NETR	VKV	IKNKVAPPF	RQAEF	DILY	GEGIS	WE	GEL	IDIGV	KN	DIINKSGAWYSY	294			
NTDB id 1427 RS RS02760 WP 011000510.1	SVRLDIR	RIGS	I	KKGE	EVV	NETK	VVVKNKVAPPF	FRBAIF	DILY	GACV	SR	EGE	IIDLG	VEAK	VVEK	SGAWYSY	302			
NTDB id 1165 A1552VC RS01565 WP 000344154.1	SVRLDIR	RTGA	I	KEGE	EVV	NETR	IKVVKNK	IAAPF	KEANTQ	IMY	G	CFNR	EGE	IDLG	VKHK	MVEK	SGAWYSY	293		
NTDB id 1142 GTF74 RS11550 WP 000344154.1	SVRLDIR	RTGA	I	KEGE	EVV	NETR	IKVVKNK	IAAPF	KEANTQ	IMY	G	CFNR	EGE	IDLG	VKHK	MVEK	SGAWYSY	293		
NTDB id 1022 ACIAD RS06390 WP 004925639.1	SVRLDIR	RIGQ	V	KEG	DEIV	GSETK	VVVKNK	MAPPF	REAI	FQILY	GK	VNQL	GEL	VDLAV	QQN	IVQK	GAWYSY	293		
NTDB id 1074 ABD1 RS10195 WP 000344167.1	SVRLDIR	RIGQ	V	KEG	DEIV	GSETK	VVVKNK	MAPPF	REAI	FQILY	GK	CTNQL	GEL	VDLAV	QQD	IVQK	GAWYSY	293		
NTDB id 1205 PSJM300 05545 AFN77183.1	SVRLDIR	RTGA	V	KEG	DEIV	GSETR	VVVKNKVAPPF	RQAEF	QILY	GK	GIY	EN	GE	IIDLG	VQQGL	VVEK	SGAWI	AYK	293	
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 408 SMU RS09530 WP 002262392.1
NTDB id 1142855 DQL26 RS08500 WP 023612576.1
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 1211 C694 RS00795 WP 000963128.1
NTDB id 1214 NCTC11637 00359 SQJ03206.1
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



logo

		LEE	
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 1142855 DQL26 RS08500 WP 023612576.1	D..	378	
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 1211 C694 RS00795 WP 000963128.1	...	347	
NTDB id 1214 NCTC11637 00359 SQJ03206.1	...	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