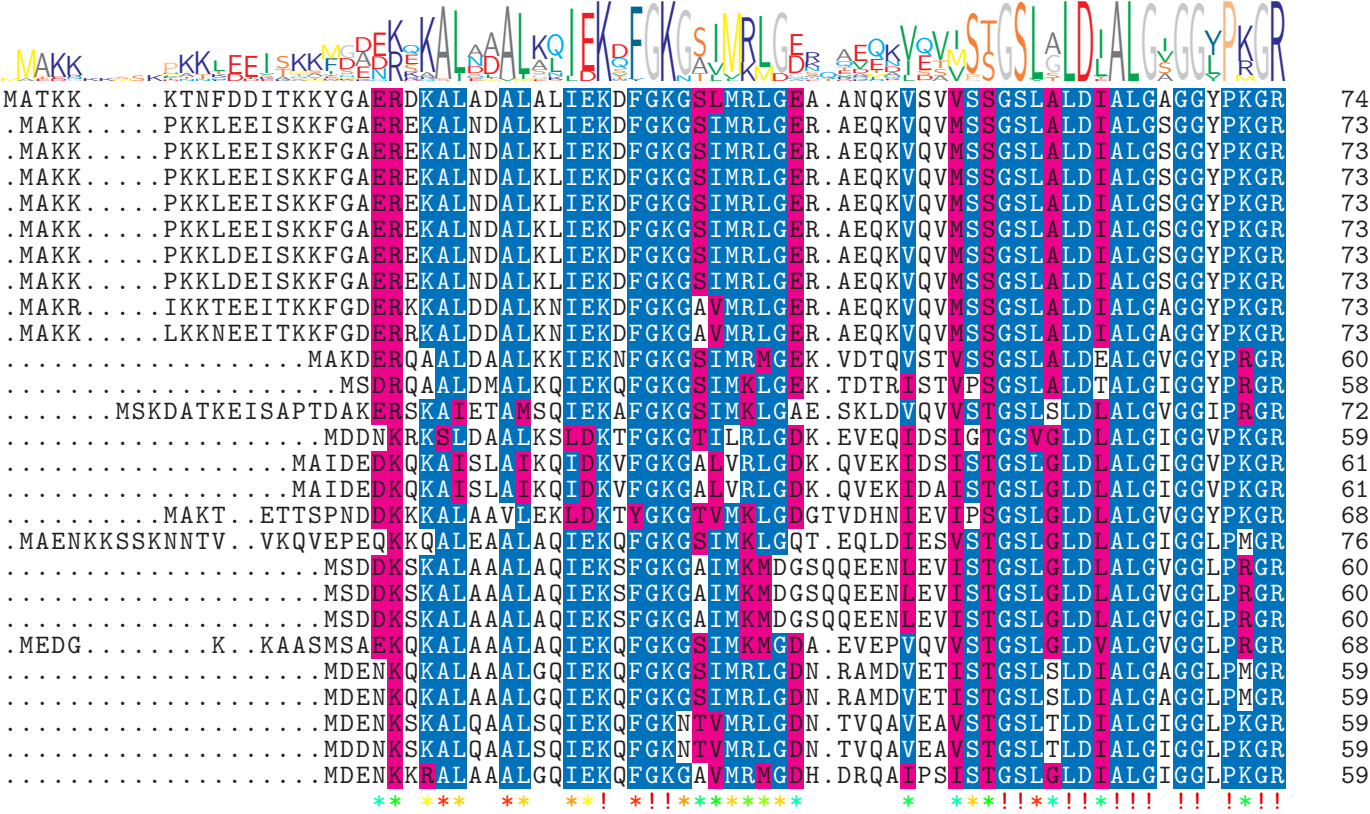


logo

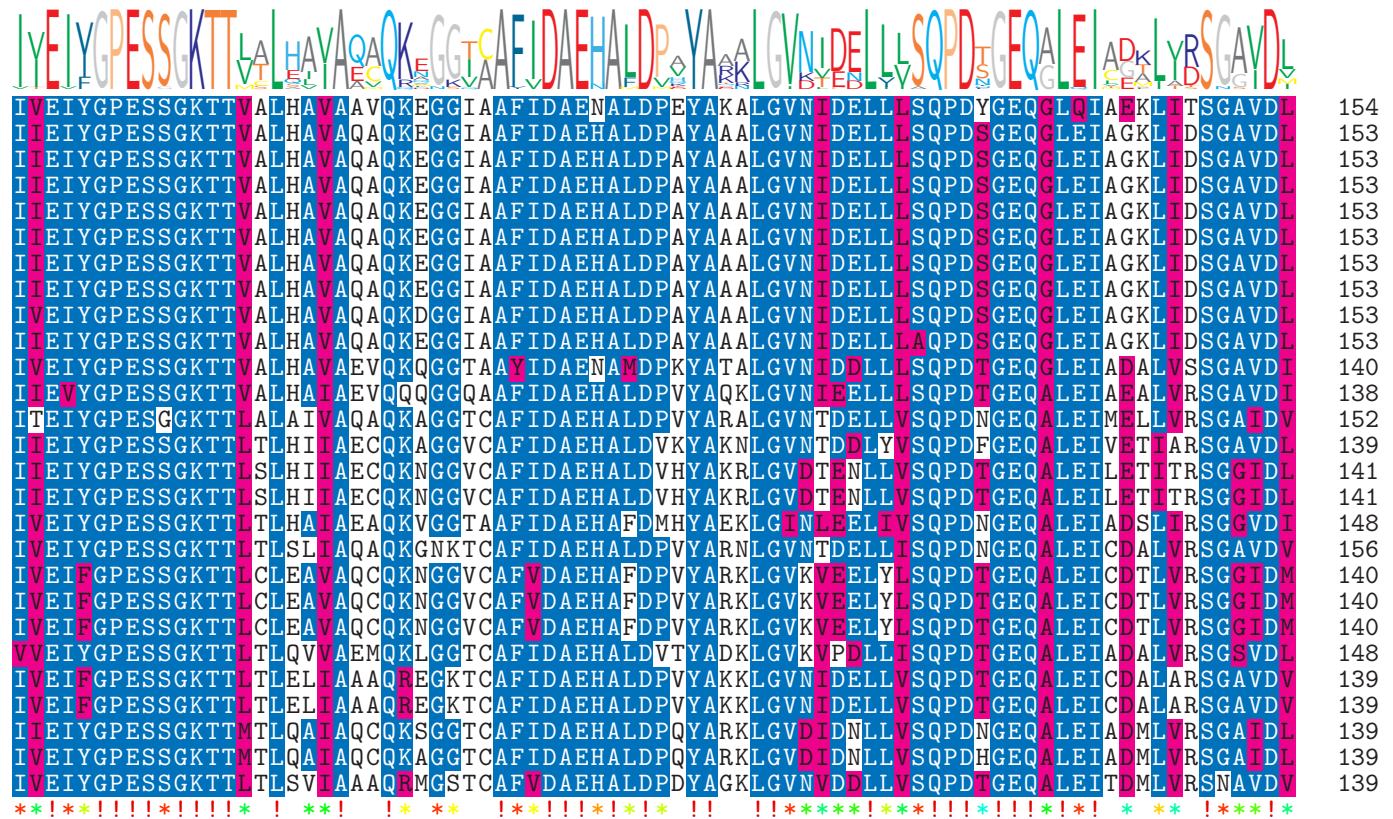
NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 106530 AABA16 RS09000 WP 001085462.1
NTDB id 269 KZH43 RS08665 WP 001085462.1
NTDB id 228 SPD RS09265 WP 001085462.1
NTDB id 194 SPR RS08825 WP 001085462.1
NTDB id 159 SP RS09750 WP 001085462.1
NTDB id 499 SM12261 RS08315 WP 078228268.1
NTDB id 527 SMSK321 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 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 1074 ABD1 RS10195 WP 000344167.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1205 PSJM300 05545 AFN77183.1
consensus



```

NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 106530 AABA16 RS09000 WP 001085462.1
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 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 1074 ABD1 RS10195 WP 000344167.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1205 PSJM300 05545 AFN77183.1
consensus

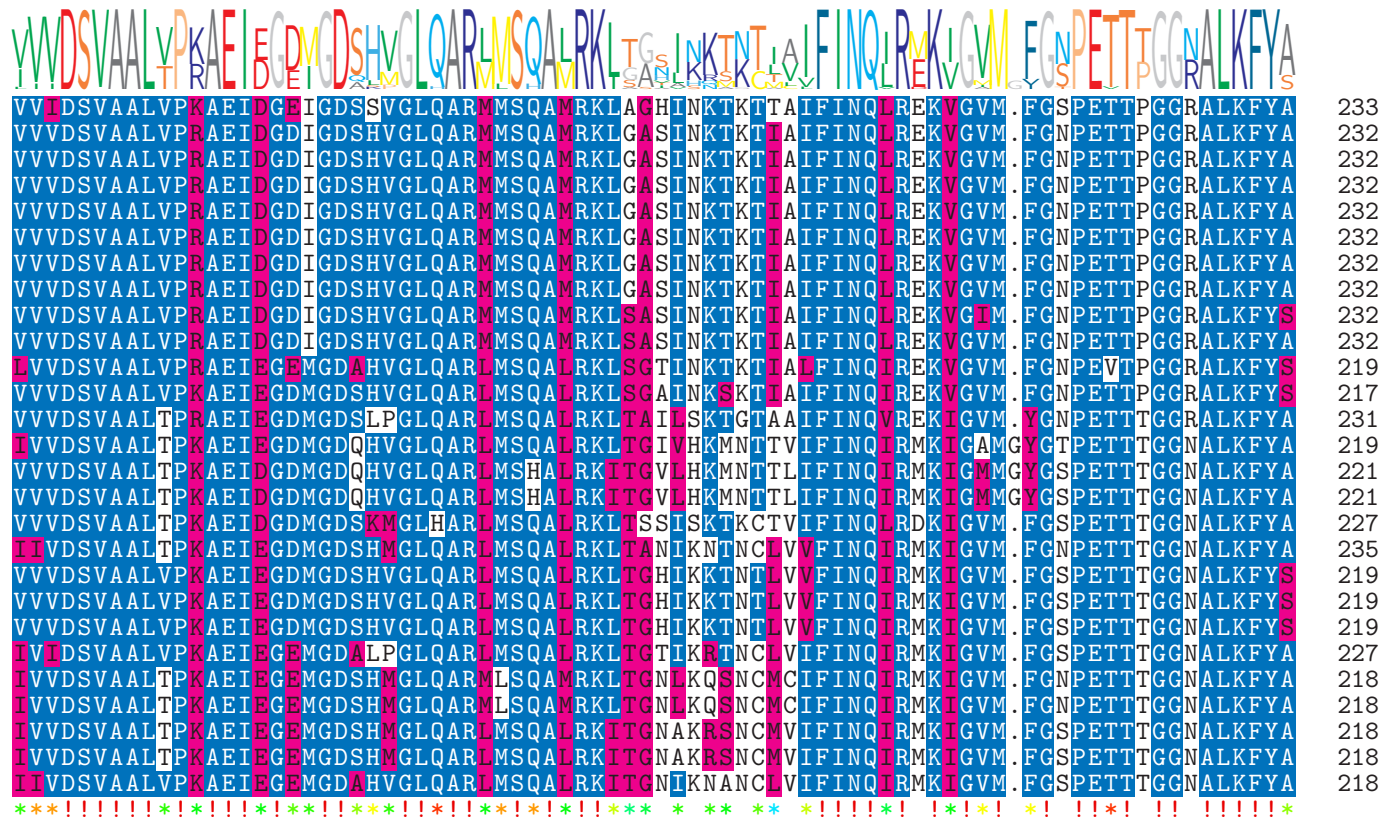
```



```

NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 106530 AABA16 RS09000 WP 001085462.1
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 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 1074 ABD1 RS10195 WP 000344167.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1205 PSJM300 05545 AFN77183.1
consensus

```

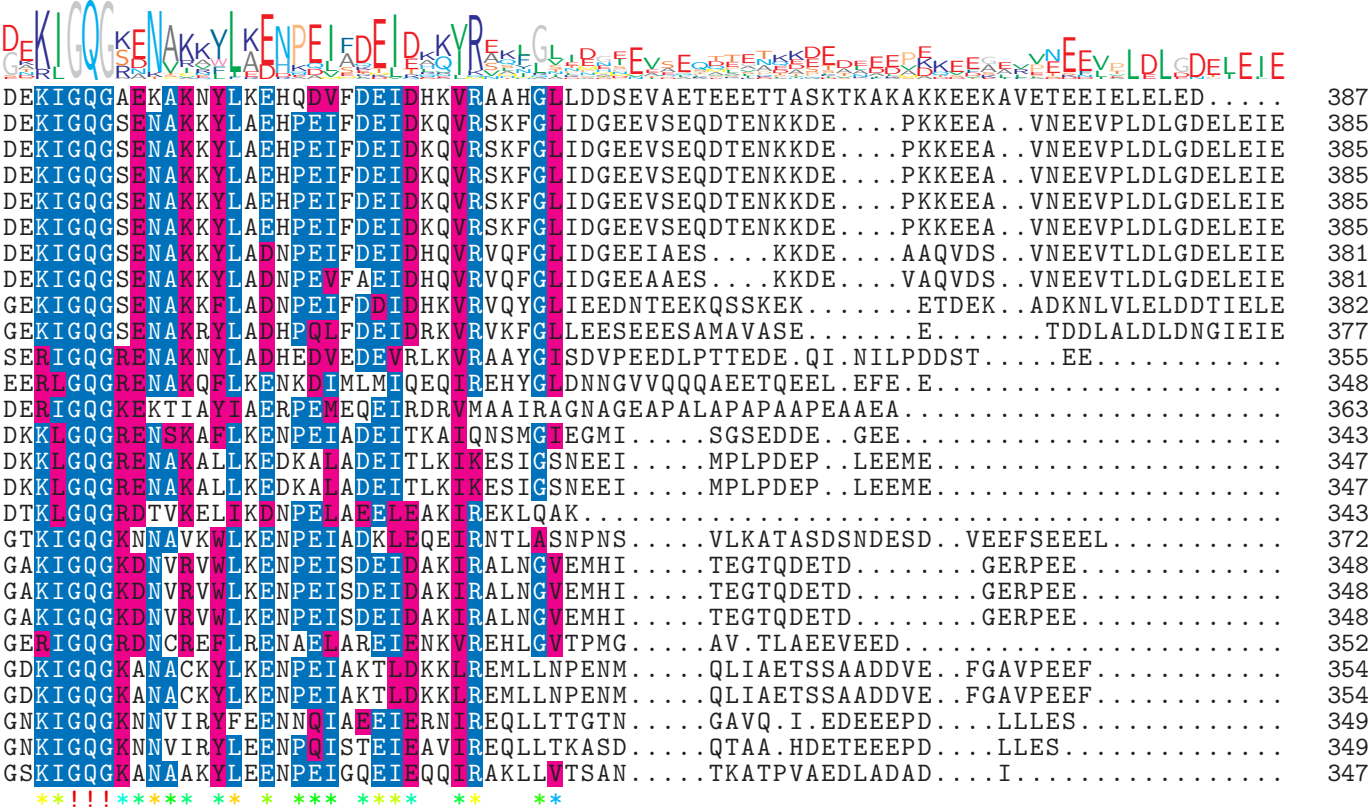


logo

NTDB id 600 KW2 RS01765 WP 011675413.1	SVRLDVRG	STKIEEGS	.GDNKTQ	IKITK	KVVKNKVAPPF	KVALVD	IMF	GEGIS	STGEL	LNIA	VEEG	TIKK	SGAW	FAYN	312							
NTDB id 106530 AABA16 RS09000 WP 001085462.1	SVRLDVRG	NTQIKGTG	.DQKE	TNV	GKETK	KVVKNKVAPPF	KEAVVE	IMY	GEGIS	KTGEL	LKIAS	SDL	DIKK	GAWYSYK	311							
NTDB id 269 KZH43 RS08665 WP 001085462.1	SVRLDVRG	NTQIKGTG	.DQKE	TNV	GKETK	KVVKNKVAPPF	KEAVVE	IMY	GEGIS	KTGEL	LKIAS	SDL	DIKK	GAWYSYK	311							
NTDB id 228 SPD RS09265 WP 001085462.1	SVRLDVRG	NTQIKGTG	.DQKE	TNV	GKETK	KVVKNKVAPPF	KEAVVE	IMY	GEGIS	KTGEL	LKIAS	SDL	DIKK	GAWYSYK	311							
NTDB id 194 SPR RS08825 WP 001085462.1	SVRLDVRG	NTQIKGTG	.DQKE	TNV	GKETK	KVVKNKVAPPF	KEAVVE	IMY	GEGIS	KTGEL	LKIAS	SDL	DIKK	GAWYSYK	311							
NTDB id 159 SP RS09750 WP 001085462.1	SVRLDVRG	NTQIKGTG	.DQKE	TNV	GKETK	KVVKNKVAPPF	KEAVVE	IMY	GEGIS	KTGEL	LKIAS	SDL	DIKK	GAWYSYK	311							
NTDB id 499 SM12261 RS08315 WP 078228268.1	SVRLDVRG	STQIKGTG	.DQKD	TNV	GKETK	KVVKNKVAPPF	KEAFVE	IMY	GEGIS	KTGEL	LKIAS	SDL	DIKK	GAWYSYK	311							
NTDB id 527 SMSK321 RS11065 WP 001085454.1	SVRLDVRG	STQIKGTG	.DQKD	TNV	GKETK	KVVKNKVAPPF	KEAFVE	IMY	GEGIS	KTGEL	LKIAS	SDL	DIKK	GAWYSYK	311							
NTDB id 408 SMU RS09530 WP 002262392.1	SVRLDVRG	NTQIKGTG	.EQKD	SNIC	GKETK	KVVKNKVAPPF	KEAFVE	ILY	GEGIS	RTGEL	VKIAS	SDL	GIIQ	KAGAWYSYN	311							
NTDB id 453 Spy49 1753c ACI62003.1	SVRLDVRG	TTQIKGTG	.DQKD	SSI	GKETK	KVVKNKVAPPF	KVAEVE	IMY	GEGIS	RTGEL	VKIAS	SDL	DIIQ	KAGAWFSYN	311							
NTDB id 625 LCA RS02525 WP 011374196.1	TVRLEVR	RAETIKNGT	DM	ICNR	ARI	KVVKNKVAPPF	KVAEVD	IMY	G	GIS	RTGEL	VDMA	VEKD	IINK	SCSWYSYG	294						
NTDB id 115 BSU 16940 NP 389576.2	SVRLEVR	RAEQLKQGN	DV	MCNK	TK	KVVKNKVAPPF	RTAEVD	IMY	GEGIS	KEGE	IIDL	GLTE	LDI	VQK	SCSWYSYE	292						
NTDB id 1313 DR RS12030 WP 010888966.1	SVRLDVR	KIGQ	PT	KVGND	AVANT	VKIK	TVKNKVA	APFKE	VELAL	VYCK	GFDQL	SDL	VGLA	ADMD	DIKK	ACSFYSYG	307					
NTDB id 1245 Cj1673c YP 002345041.1	SVRLDVR	KKVAT	L	KQNE	EPIC	NRVK	KVVKNKVAPPF	FRQAEF	DVME	GEG	LS	REGEL	IDY	GVKL	DI	VDK	SGAWFSYK	294				
NTDB id 1211 C694 RS00795 WP 000963128.1	SVRDIR	RIAS	L	KQNE	QHIC	NRAK	KVVKNKVAPPF	FEAEFD	IMF	GEGIS	KEGE	IIDY	GVKL	DI	VDK	SGAWLSYQ	296					
NTDB id 1214 NCTC11637 00359 SQJ03206.1	SVRDIR	RIAA	L	KQNE	QHIC	NRAK	KVVKNKVAPPF	FEAEFD	IMF	GEGIS	KEGE	IIDY	GVKL	DI	VDK	SGAWLSYQ	296					
NTDB id 1334 RA0C RS04870 WP 004918236.1	SVRDIR	RSLSDTG	KIKDKSGE	VIC	NR	TKV	KVVKNKVAPPF	KS	AEFD	IMY	GEG	VSKV	GE	ILD	VAT	DL	DI	QK	SCSWFSYQ	307		
NTDB id 1389 A4U84 RS07560 WP 021112712.1	SVRLDIR	RCGV	V	KDGE	DIIG	SETK	KVVKNKVAPPF	FEVQFD	IMY	GEGIS	RMNEL	LILAE	ANGF	IKK	SGAWFSYD	310						
NTDB id 1130 NGFG RS03960 WP 003688695.1	SVRLDIR	RTGS	I	KKGE	EVLC	NETR	VKV	IKNKVAPPF	FRQAEFD	ILY	GEGIS	WE	GEL	ID	IGVKN	DI	IINK	SGAWYSYN	294			
NTDB id 1124 NGFG RS03960 WP 003688695.1	SVRLDIR	RTGS	I	KKGE	EVLC	NETR	VKV	IKNKVAPPF	FRQAEFD	ILY	GEGIS	WE	GEL	ID	IGVKN	DI	IINK	SGAWYSYN	294			
NTDB id 1123 OK783 RS03845 WP 003688695.1	SVRLDIR	RTGS	I	KKGE	EVLC	NETR	VKV	IKNKVAPPF	FRQAEFD	ILY	GEGIS	WE	GEL	ID	IGVKN	DI	IINK	SGAWYSYN	294			
NTDB id 1427 RS RS02760 WP 011000510.1	SVRLDIR	RIGS	I	KKGE	EVV	GNET	KV	KVVKNKVAPPF	FEAIFD	ILY	G	ACV	S	REGEL	ID	LG	VEAK	VVEK	SGAWYSYN	302		
NTDB id 1165 A1552VC RS01565 WP 000344154.1	SVRLDIR	RTGA	I	KEGE	EVV	GNET	RI	KVVKNK	IAAPF	KEANTQ	IMY	G	CFNR	REGEL	ID	LG	VKHK	MVEK	SGAWYSYN	293		
NTDB id 1142 GTF74 RS11550 WP 000344154.1	SVRLDIR	RTGA	I	KEGE	EVV	GNET	RI	KVVKNK	IAAPF	KEANTQ	IMY	G	CFNR	REGEL	ID	LG	VKHK	MVEK	SGAWYSYN	293		
NTDB id 1074 ABD1 RS10195 WP 000344167.1	SVRLDIR	RIGQ	V	KEG	DEIV	GSET	KV	KVVKNKMAPPF	KEAIFQ	ILY	GK	CTNQL	GEL	VD	LAVQQ	DI	VQK	KAGAWYSYQ	293			
NTDB id 1022 ACIAD RS06390 WP 004925639.1	SVRLDIR	RIGQ	V	KEG	DEIV	GSET	KV	KVVKNKMAPPF	FEAIFQ	ILY	GK	CTNQL	GEL	VD	LAVQQ	DI	VQK	KAGAWYSYQ	293			
NTDB id 1205 PSJM300 05545 AFN77183.1	SVRLDIR	RTGA	V	KEG	DEIV	GSET	RV	KVVKNKVAPPF	FRQAEFQ	ILY	GK	GIY	EN	GE	ID	LG	VQQGL	VVEK	SGAWIAYK	293		
consensus	*!!	*****!	*	*	*	*	*	*****!	*!!	!!	*!!	!!	*****	*	*****!	*!!	*****	*	*****	!!	!!	*****!

logo

NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 106530 AABA16 RS09000 WP 001085462.1
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 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 1074 ABD1 RS10195 WP 000344167.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1205 PSJM300 05545 AFN77183.1
consensus



logo

		LEE	
NTDB id 600 KW2 RS01765 WP 011675413.1	...	387	
NTDB id 106530 AABA16 RS09000 WP 001085462.1	IEE	388	
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 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 1074 ABD1 RS10195 WP 000344167.1	...	349	
NTDB id 1022 ACIAD RS06390 WP 004925639.1	...	349	
NTDB id 1205 PSJM300 05545 AFN77183.1	...	347	
consensus			

- non conserved
- similar
- ≥ 50% conserved