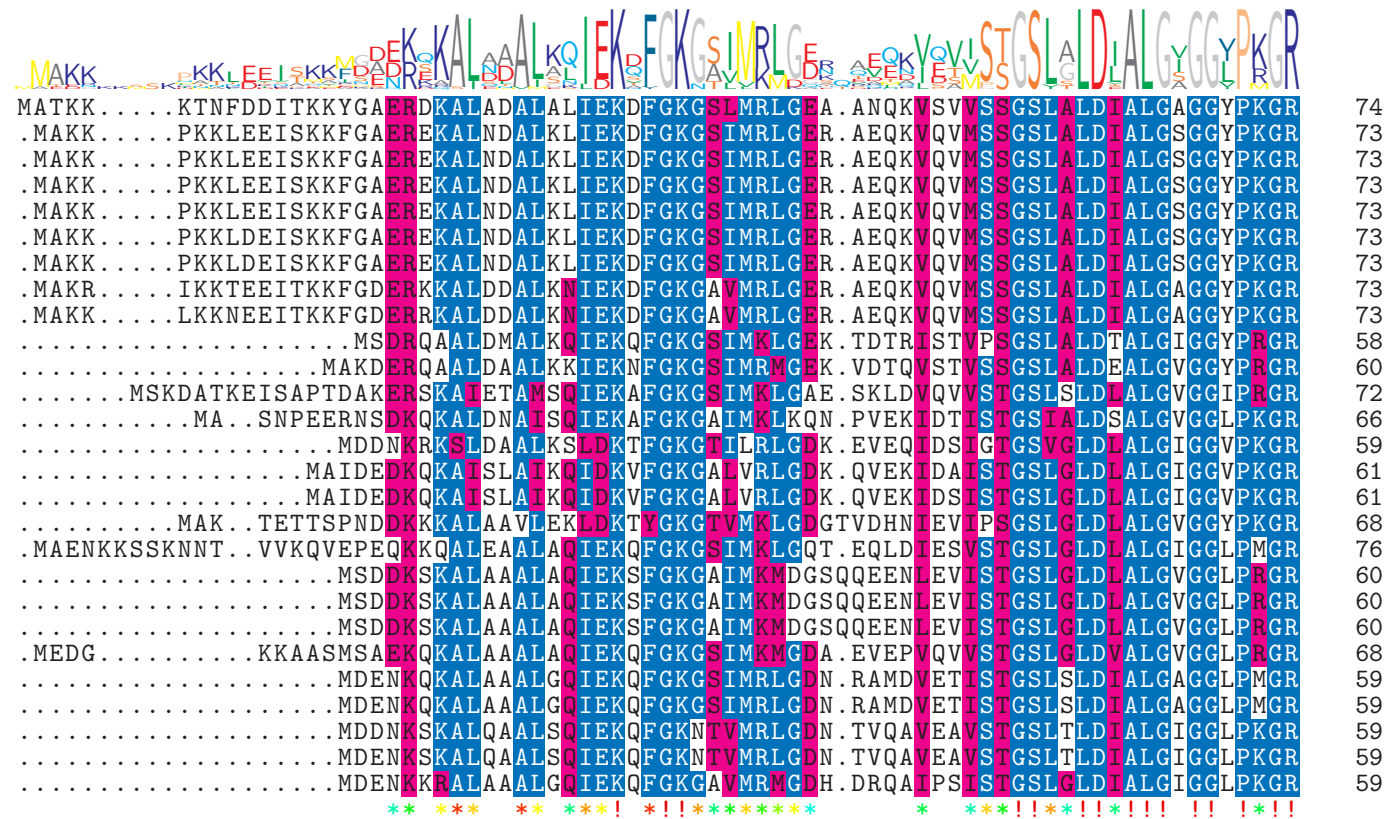


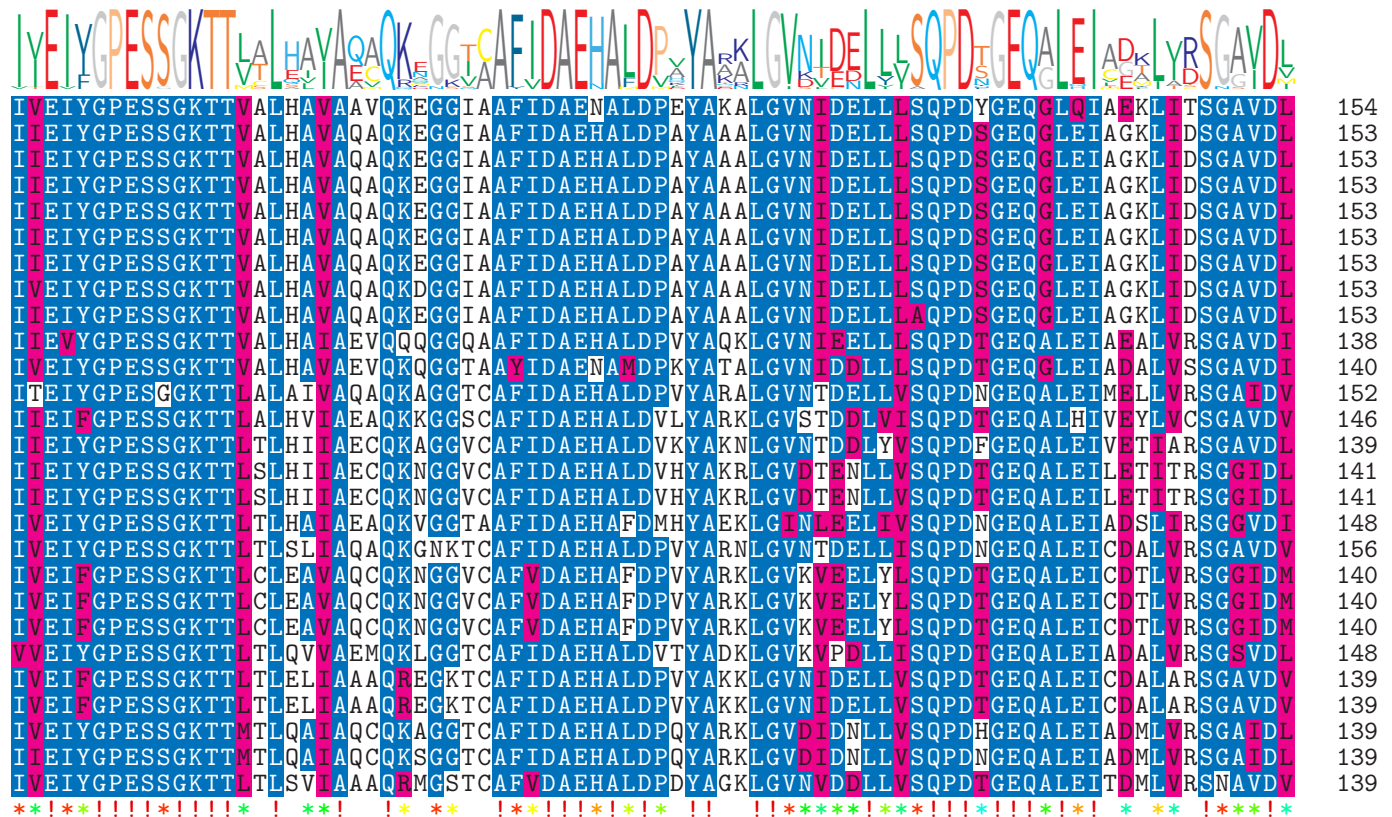
```

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 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1313 DR RS12030 WP 010888966.1
NTDB id 377916 FRT61 RS05135 WP 010963008.1
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

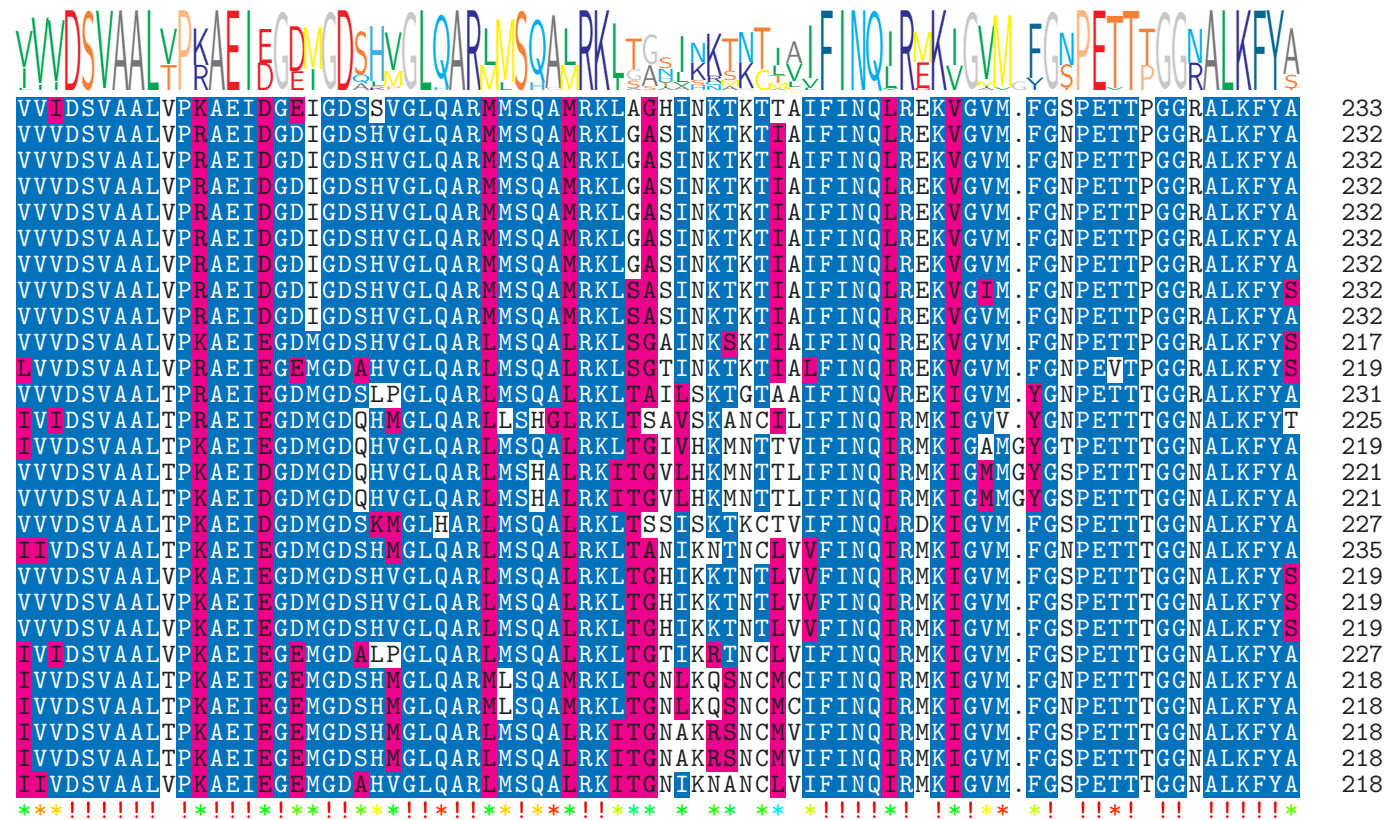
```



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 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1313 DR RS12030 WP 010888966.1
NTDB id 377916 FRT61 RS05135 WP 010963008.1
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 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 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1313 DR RS12030 WP 010888966.1
NTDB id 377916 FRT61 RS05135 WP 010963008.1
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



logo

NTDB id 600 KW2 RS01765 WP 011675413.1	SVRLDVRGSTKIEEGS.GDNKTQIGK	ITKIKVVKNKVAPPFKVALVDIMFGEGISSTGELINIAVEEGI	TKKSGAWFAYN	312			
NTDB id 269 KZH43 RS08665 WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETN	VGKETKIKVVKNKVAPPFKAEVVEIMYEGEGISKTGELLKIASDLDI	TKKAGAWYSYK	311			
NTDB id 228 SPD RS09265 WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETN	VGKETKIKVVKNKVAPPFKAEVVEIMYEGEGISKTGELLKIASDLDI	TKKAGAWYSYK	311			
NTDB id 194 SPR RS08825 WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETN	VGKETKIKVVKNKVAPPFKAEVVEIMYEGEGISKTGELLKIASDLDI	TKKAGAWYSYK	311			
NTDB id 159 SP RS09750 WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETN	VGKETKIKVVKNKVAPPFKAEVVEIMYEGEGISKTGELLKIASDLDI	TKKAGAWYSYK	311			
NTDB id 499 SM12261 RS08315 WP 078228268.1	SVRLDVRGSTQIKGTG.DQKDTN	VGKETKIKVVKNKVAPPFKAEFVEIMYEGEGISKTGELLKIASDLDI	TKKAGAWYSYK	311			
NTDB id 527 SMSK321 RS11065 WP 001085454.1	SVRLDVRGSTQIKGTG.DQKDTN	VGKETKIKVVKNKVAPPFKAEFVEIMYEGEGISKTGELLKIASDLDI	TKKAGAWYSYK	311			
NTDB id 408 SMU RS09530 WP 002262392.1	SVRLDVRGNTQIKGTG.EQKDSN	IGKETKIKVVKNKVAPPFKAEFVEIITYGEGISRTGELVKIASDLGI	IQKAGAWYSYN	311			
NTDB id 453 Spy49 1753c ACI62003.1	SVRLDVRGTTQIKGTG.DQKDSS	IGKETKIKVVKNKVAPPFKVAEVEIMYEGEGISRTGELVKIASDLDI	IQKAGAWFSYN	311			
NTDB id 115 BSU 16940 NP 389576.2	SVRLEVRRAEQLKQGN.....DVMGNKTKIKVVKNKVAPPFR	TAEVDIMYEGEGISKEGEIIDLGTELD	IVQKSGSWYSYE	292			
NTDB id 625 LCA RS02525 WP 011374196.1	TVRLEVRRAETIKNGT.....DMIGNRARIKVVKNKVAPPFK	VAEVDIMYGGISRTGELVDMAVEKDI	INKSGSWYSYG	294			
NTDB id 1313 DR RS12030 WP 010888966.1	SVRLDVRKIGQ....PTKVGND	AVANTVKIKTVKNKVAAPFKEVELALVYGKGFQDLS	DLVGLAADM	DI	TKKAGSFYSYG	307	
NTDB id 377916 FRT61 RS05135 WP 010963008.1	SVRLDIRKVG....I.KDKENITGN	ETRVKVVKNKVAPPFREAKFDIMYN	EGISKLGEIIDMGAKLG	VLEKAGAYSYN	300		
NTDB id 1245 Cj1673c YP 002345041.1	SVRLDVRKVAT....L.KQNEEP	IGNRVKVVKNKVAPPFRQAEFDVMFGEGLS	REGELIDYGVKLD	IVDKSGAWFSYK	294		
NTDB id 1214 NCTC11637 00359 SQJ03206.1	SVRIDIRRIAA....L.KQNEQH	IGNRAKAKVVKNKVAPPFREA	EFDIMFGEGISKEGEIIDYGVKLD	IVDKSGAWLSYQ	296		
NTDB id 1211 C694 RS00795 WP 000963128.1	SVRIDIRRIAS....L.KQNEQH	IGNRAKAKVVKNKVAPPFREA	EFDIMFGEGISKEGEIIDYGVKLD	IVDKSGAWLSYQ	296		
NTDB id 1334 RAOC RS04870 WP 004918236.1	SVRIDIRRLSDTGKIKDKSGEV	IGNRTKVVKNKVAPPFKSAE	FDIMYEGGVSKVGEILD	VATDLD	DI	IQKSGSWFSYQ	307
NTDB id 1389 A4U84 RS07560 WP 021112712.1	SVRLDIRRCGV....V.KDGD	EIGSETKVVKNKVAPPFREVQFDIMYEGEGISRMNELL	ILAEANGFI	KKSGAWFSYD	310		
NTDB id 1130 NGFG RS03960 WP 003688695.1	SVRLDIRRTGS....I.KKGE	EVLGNETRVKVIKNKVAPPFRQAEFDILYEGEGISWEGELID	IGVKN	DI	INKSGAWYSYN	294	
NTDB id 1124 NGFG RS03960 WP 003688695.1	SVRLDIRRTGS....I.KKGE	EVLGNETRVKVIKNKVAPPFRQAEFDILYEGEGISWEGELID	IGVKN	DI	INKSGAWYSYN	294	
NTDB id 1123 OK783 RS03845 WP 003688695.1	SVRLDIRRTGS....I.KKGE	EVLGNETRVKVIKNKVAPPFRQAEFDILYEGEGISWEGELID	IGVKN	DI	INKSGAWYSYN	294	
NTDB id 1427 RS RS02760 WP 011000510.1	SVRLDIRRIGS....I.KKGD	EVVGNETKVVKNKVAPPFREA	IFDILYGAGVSR	EGEIIDLGVEAK	VVEKSGAWYSYN	302	
NTDB id 1165 A1552VC RS01565 WP 000344154.1	SVRLDIRRTGA....I.KEG	EEVVGNETRIKVVKNKIAAPFKEANTQIMYGG	GFNREGELIDLGVKHKM	VVEKSGAWYSYN	293		
NTDB id 1142 GTF74 RS11550 WP 000344154.1	SVRLDIRRTGA....I.KEG	EEVVGNETRIKVVKNKIAAPFKEANTQIMYGG	GFNREGELIDLGVKHKM	VVEKSGAWYSYN	293		
NTDB id 1022 ACIAD RS06390 WP 004925639.1	SVRLDIRRIGQ....V.KEG	DEIVGSETKVVKNKMAPPFREA	IFQILYGKG	VNQLGELVDLAVQQ	NI	VQKAGAWYSYQ	293
NTDB id 1074 ABD1 RS10195 WP 000344167.1	SVRLDIRRIGQ....V.KEG	DEIVGSETKVVKNKMAPPFKEA	IFQILYGKG	GTNQLGELVDLAVQQ	DI	VQKAGAWYSYQ	293
NTDB id 1205 PSJM300 05545 AFN77183.1	SVRLDIRRTGA....V.KEG	DEVVGS	ETRVKVVKNKVAPPFRQAEFQILYGKG	IYRNGEI	IDLGVQQGL	VVEKSGAWYAYK	293
consensus	*!!**!* *	* ** *****!*****!*****!*****	*****!***** ***** *	***** ! !*****!			

logo

NTDB id 600 KW2 RS01765 WP 011675413.1	DEKIGQGA	EKAKNYLKEHQDVFD	DEIDHKVRAAHGL	LDDSEVAET	....	EEETTAS	TKAKAKKEEK	AVETEEIELE	LED	387				
NTDB id 269 KZH43 RS08665 WP 001085462.1	DEKIGQGS	ENAKKYLAEHPEIF	DEIDKQVRSKFGL	IDGEEVSEQ	....	DTENKK	DE	....	PKKEEA..VNEEVPLDLGD	380				
NTDB id 228 SPD RS09265 WP 001085462.1	DEKIGQGS	ENAKKYLAEHPEIF	DEIDKQVRSKFGL	IDGEEVSEQ	....	DTENKK	DE	....	PKKEEA..VNEEVPLDLGD	380				
NTDB id 194 SPR RS08825 WP 001085462.1	DEKIGQGS	ENAKKYLAEHPEIF	DEIDKQVRSKFGL	IDGEEVSEQ	....	DTENKK	DE	....	PKKEEA..VNEEVPLDLGD	380				
NTDB id 159 SP RS09750 WP 001085462.1	DEKIGQGS	ENAKKYLAEHPEIF	DEIDKQVRSKFGL	IDGEEVSEQ	....	DTENKK	DE	....	PKKEEA..VNEEVPLDLGD	380				
NTDB id 499 SM12261 RS08315 WP 078228268.1	DEKIGQGS	ENAKKYLADNPEIF	DEIDHQVRVQFGL	IDGEEIAES	.....	KKDE	....	AAQVDS..VNEEVTLDLGD	376					
NTDB id 527 SMSK321 RS11065 WP 001085454.1	DEKIGQGS	ENAKKYLADNPEVFAE	IDHQVRVQFGL	IDGEEAAES	.....	KKDE	....	VAQVDS..VNEEVTLDLGD	376					
NTDB id 408 SMU RS09530 WP 002262392.1	GEKIGQGS	ENAKKFLADNPEIF	DDIDHKVVRVQYGL	IEEDNTEEK	....	QSSKEK	.....	ETDEK..ADKNLVLELDD	377					
NTDB id 453 Spy49 1753c ACI62003.1	GEKIGQGS	ENAKRYLADHPQLF	DEIDRKVRVKFGL	LEESEESA	....	MAVASE	.....	E.....TDDLALDLDN	372					
NTDB id 115 BSU 16940 NP 389576.2	EERLGGQREN	AKQFLKENKDI	IMLIQE	QIREHYGL	DNNGVVQQQ	....	AEETQE	EL	EFE.E.....	348				
NTDB id 625 LCA RS02525 WP 011374196.1	SERIGQGREN	AKNYLADHEDVE	DEVRLKVRAAYG	ISDVPPEEDLP	....	TTEDE	..QI	..NILPDDST	EE.....	355				
NTDB id 1313 DR RS12030 WP 010888966.1	DERIGQGKE	KTIA	YIAERP	MEQEIRDRV	MAAIRAGNAGE	APALAPAPAA	PEAAEA	.....	.....	363				
NTDB id 377916 FRT61 RS05135 WP 010963008.1	NT	RLGQGRE	NV	KTYLKT	NKEVANEI	ETKIR	DLLRNHDNSII	....	IDEDSEQLLE	..SVF.....	355			
NTDB id 1245 Cj1673c YP 002345041.1	DKKL	LGQGRE	NSKAF	LKENPEI	ADEITKAI	QNSMG	IEGMISG	....	SEDD..EGEE	.....	343			
NTDB id 1214 NCTC11637 00359 SQJ03206.1	DKKL	LGQGRE	NAKALL	KEDKAL	ADEITLK	IKESIG	SNEEIMP	....	LPDE..PLEEM	..E.....	347			
NTDB id 1211 C694 RS00795 WP 000963128.1	DKKL	LGQGRE	NAKALL	KEDKAL	ADEITLK	IKESIG	SNEEIMP	....	LPDE..PLEEM	..E.....	347			
NTDB id 1334 RAOC RS04870 WP 004918236.1	DTKL	LGQGR	DTV	KELIK	DNPELA	EEL	EAKIREKLQAK	.....	.....	.....	343			
NTDB id 1389 A4U84 RS07560 WP 021112712.1	GTKIGQGK	NNAVKWLKENPEI	ADKLEQEIR	NTLASNPNSVL	....	KATASDSND	ES	..DVE	EFSEEL	.....	372			
NTDB id 1130 NGFG RS03960 WP 003688695.1	GAKIGQGK	DNVRVWLKENPEI	SDEIDAKIRAL	NGVEMHITE	....	GTQDET	DGER	.....	PEE.....	.....	348			
NTDB id 1124 NGFG RS03960 WP 003688695.1	GAKIGQGK	DNVRVWLKENPEI	SDEIDAKIRAL	NGVEMHITE	....	GTQDET	DGER	.....	PEE.....	.....	348			
NTDB id 1123 OK783 RS03845 WP 003688695.1	GAKIGQGK	DNVRVWLKENPEI	SDEIDAKIRAL	NGVEMHITE	....	GTQDET	DGER	.....	PEE.....	.....	348			
NTDB id 1427 RS RS02760 WP 011000510.1	GERIGQGR	DNCREFLRENAEL	AREIENKVREHLG	VTPMGAV	....	TLA	..EEVEED	.....	.....	.....	352			
NTDB id 1165 A1552VC RS01565 WP 000344154.1	GD	KIGQGGKAN	ACKY	LKENPEI	AKTLDKKL	REMLLN	PENMQL		IAETSSA	ADDV	..EFG.....	AVPEEF		354
NTDB id 1142 GTF74 RS11550 WP 000344154.1	GD	KIGQGGKAN	ACKY	LKENPEI	AKTLDKKL	REMLLN	PENMQL		IAETSSA	ADDV	..EFG.....	AVPEEF		354
NTDB id 1022 ACIAD RS06390 WP 004925639.1	GNKIGQGGK	NNVIRY	LEENPQISTE	IEAVIREQLL	TKASDQT		AA	..HDETEEP	..DLL		ES		349	
NTDB id 1074 ABD1 RS10195 WP 000344167.1	GNKIGQGGK	NNVIRY	FEENNQIAE	EIERNIREQLL	TGTNGA		VQ	..I	..EDEEP	..DLL		LES		349
NTDB id 1205 PSJM300 05545 AFN77183.1	GS	KIGQGGKAN	AAKY	LEENPEI	GQIE	EQIRAKLL	VTSANTK		ATPVAED	LADA	..DI		347	
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 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 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 377916 FRT61 RS05135 WP 010963008.1	.....		355
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	.....		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			

- X non conserved
- X similar
- X ≥ 50% conserved