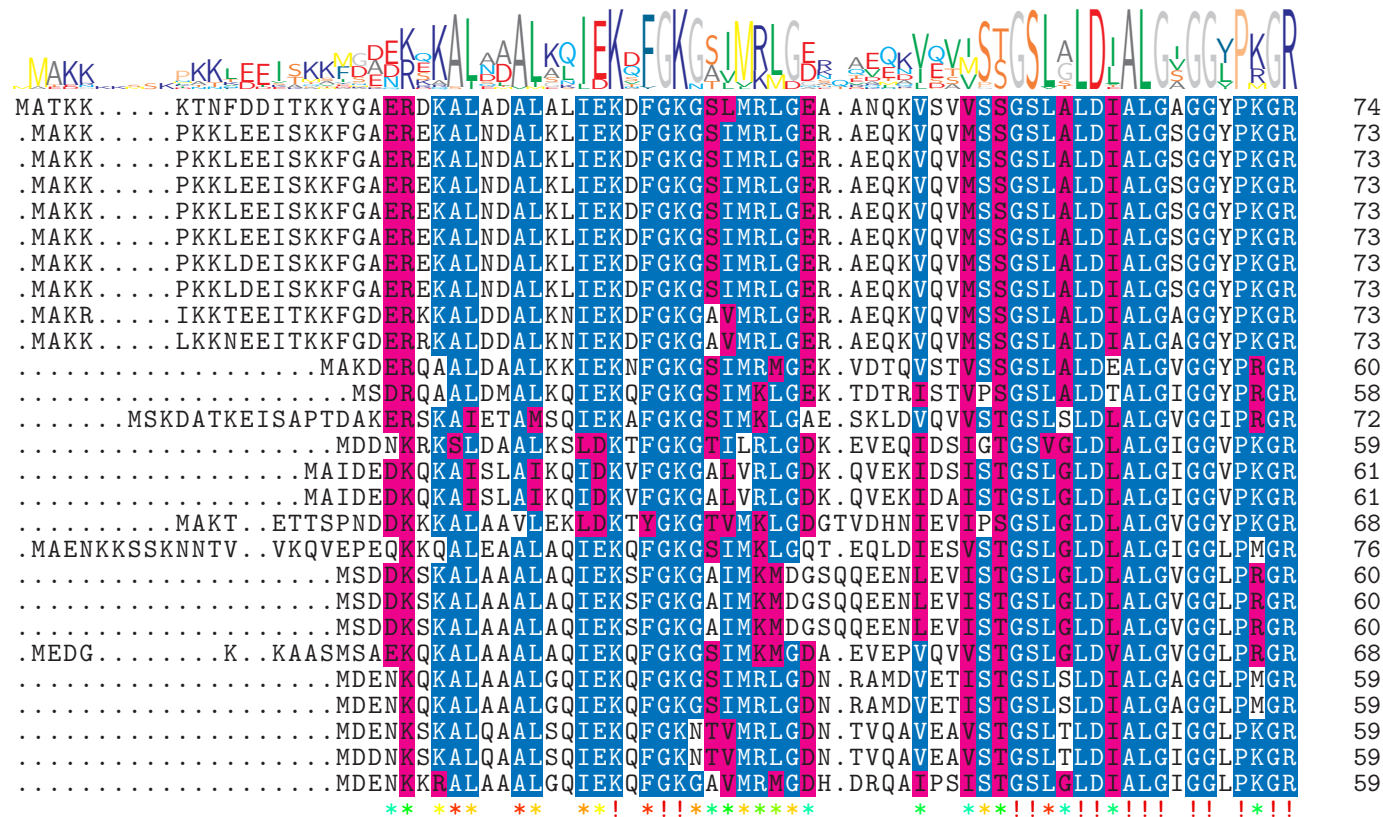


```

NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 33406 SPT RS09430 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 0011374196.1
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 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 1074 ABD1 RS10195 WP 000344167.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1205 PSJM300 05545 AFN77183.1
consensus

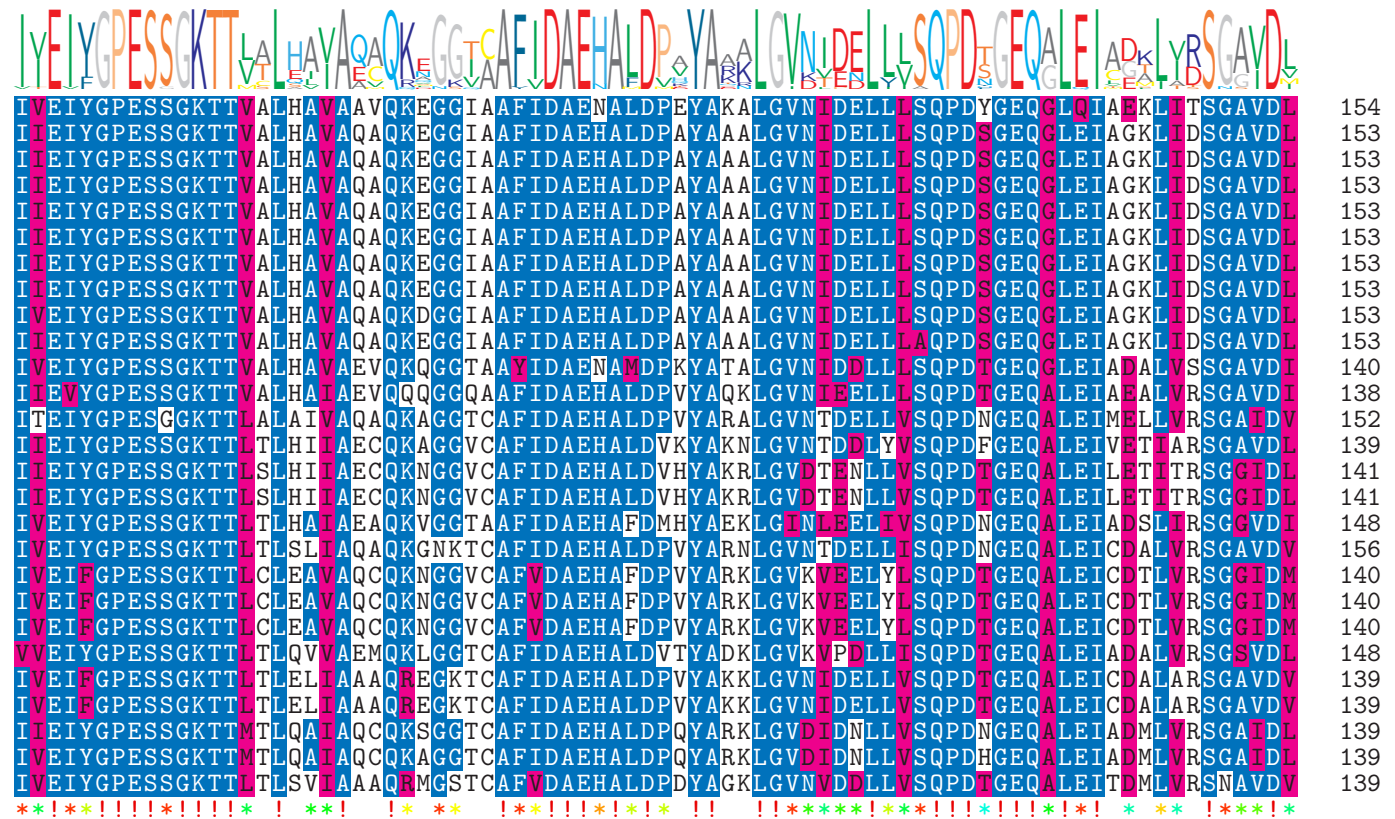
```



```

NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 33406 SPT RS09430 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 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 1074 ABD1 RS10195 WP 000344167.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1205 PSJM300 05545 AFN77183.1
consensus

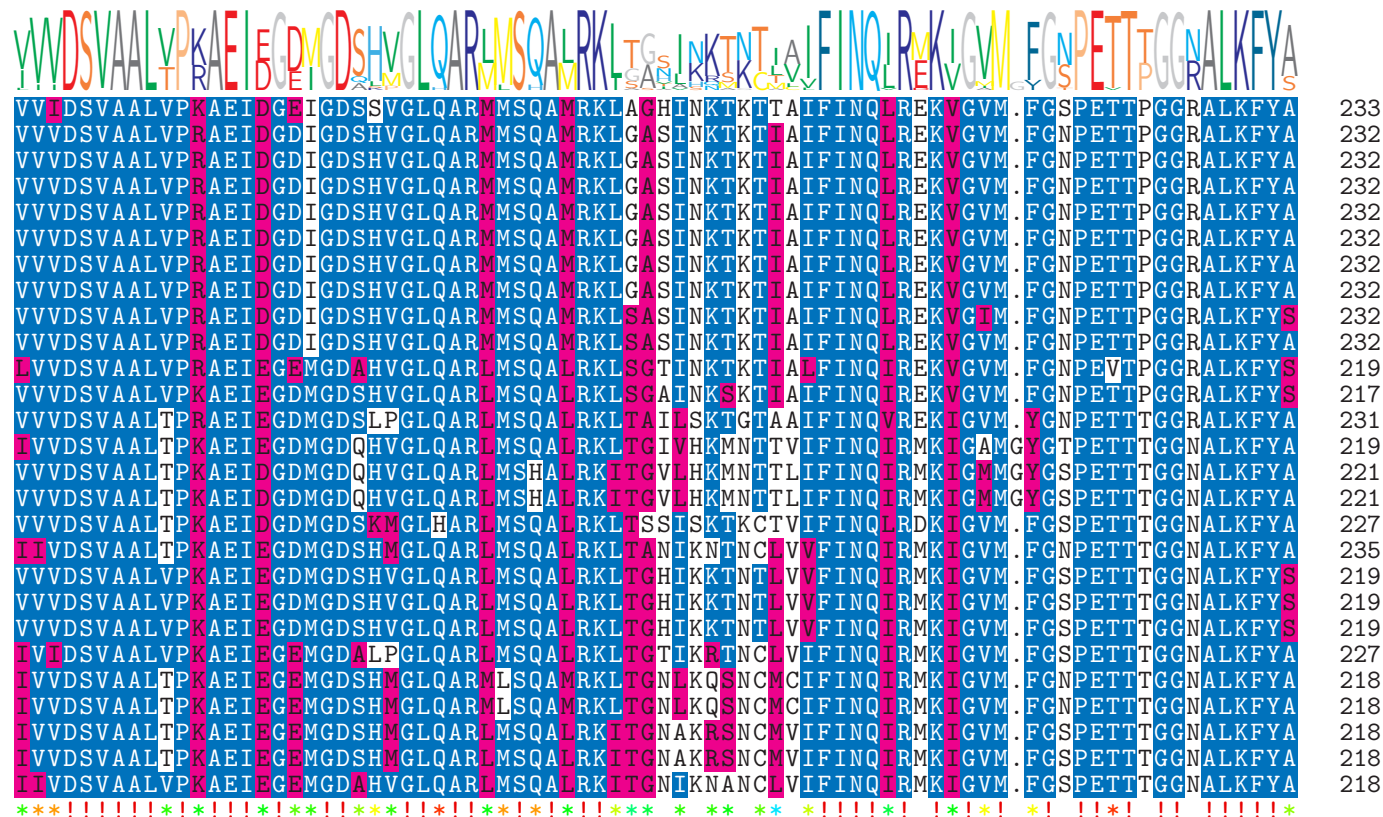
```



```

NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 33406 SPT RS09430 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 0011374196.1
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 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 1074 ABD1 RS10195 WP 000344167.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1205 PSJM300 05545 AFN77183.1
consensus

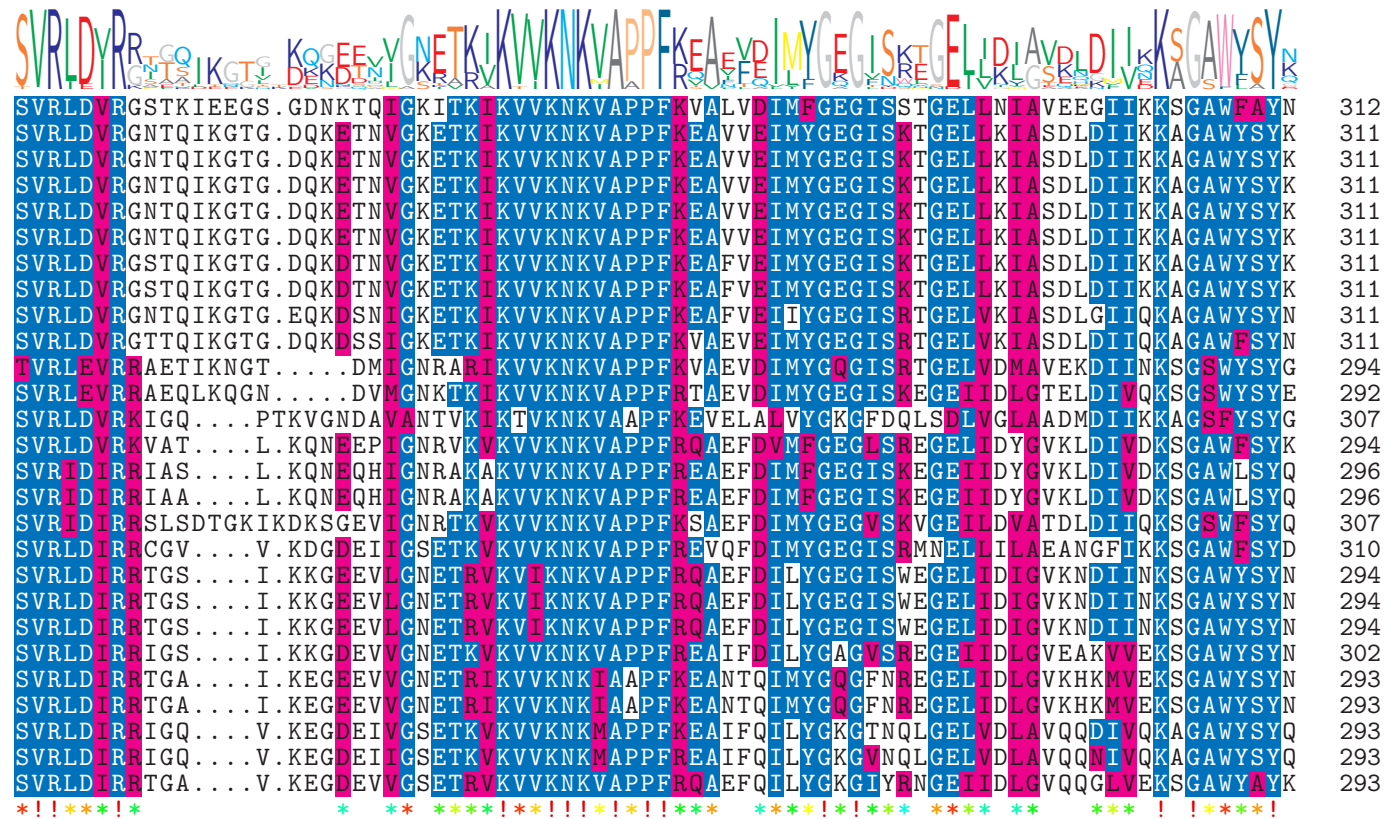
```



```

NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 33406 SPT RS09430 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 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 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 33406 SPT RS09430 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 Q5545 AFN77183.1

```

DEKIGQGA	EKA	KNYL	KEHQ	DV	FDEID	HKV	RAAHG	L	DD	SEVA	EETEE	TASKT	KAKAK	KKEEK	AVETEE	IELE	ED	.....	387			
DEKIGQGS	ENAKKYLA	EHPEIF	DEID	KQVRS	KFG	LIDGEE	VSEQD	TENKK	DE	...	PKKEEA	..	VNEEV	PLDL	GDELE	IE		385				
DEKIGQGS	ENAKKYLA	EHPEIF	DEID	KQVRS	KFG	LIDGEE	VSEQD	TENKK	DE	...	PKKEEA	..	VNEEV	PLDL	GDELE	IE		385				
DEKIGQGS	ENAKKYLA	EHPEIF	DEID	KQVRS	KFG	LIDGEE	VSEQD	TENKK	DE	...	PKKEEA	..	VNEEV	PLDL	GDELE	IE		385				
DEKIGQGS	ENAKKYLA	EHPEIF	DEID	KQVRS	KFG	LIDGEE	VSEQD	TENKK	DE	...	PKKEEA	..	VNEEV	PLDL	GDELE	IE		385				
DEKIGQGS	ENAKKYLA	ADNPEIF	DEID	HQVRV	QFG	LIDGEE	IAES	...	KKDE	...	AAQVDS	..	VNEEV	TLDL	GDELE	IE		381				
DEKIGQGS	ENAKKYLA	ADNPEV	FAEID	HQVRV	QFG	LIDGEE	AAES	...	KKDE	...	VAQVDS	..	VNEEV	TLDL	GDELE	IE		381				
GEKIGQGS	ENAKKFL	ADNPEIF	DDID	HQVRV	QYGL	IEDN	TEEK	QSSKE	.....	ETDEK	..	ADKNL	VLEL	DDT	IE		382					
GEKIGQGS	ENAKRYL	ADHPQL	FDEID	RKVRV	KFG	L	EESE	EEES	AMAVASE	.....	E	.....	TDDL	ALDL	NGIE	IE		377				
SERIGQG	RENAK	NYLAD	HDE	VE	DEV	RLK	VRAAY	G	ISDV	PEED	LPTTE	DE	QI	..	NILP	DDST	.....	EE	.....	355		
EERLGG	RENAK	QFLK	ENK	DI	MLMT	IQE	QIRE	HYGL	DNNG	VVQQ	AAET	QEEL	EFE	E	.....					348		
DERIGQG	KEKTI	AIYIA	IER	PEME	QEIR	DRV	MAA	IRAG	NAGE	APAL	APAA	PEAA	EAA	.....						363		
DKKLGG	RENSKA	FLKEN	PEI	AD	EIT	KAI	QNSM	G	IEGMI	.....	SGSE	DE	..	GEE	.....					343		
DKKLGG	RENAK	ALLKED	KAL	AD	EIT	LKIK	ESIG	SNEEI	.....	MPLP	DEP	..	LEEME	.....						347		
DKKLGG	RENAK	ALLKED	KAL	AD	EIT	LKIK	ESIG	SNEEI	.....	MPLP	DEP	..	LEEME	.....						347		
DTKLGG	RD	TVKEL	IKDN	PELA	E	LEAK	I	REKL	QAK	.....										343		
GTKIGQG	KNN	AVKWL	KEN	PEI	AD	KL	EQE	IRNT	L	ASNP	NS		VLKAT	ASDS	NDES	D	..	VEEF	SEEL		372	
GAKIGQG	KDN	VRVWL	KEN	PEI	S	DEI	DAK	IRAL	NG	V	EMHI	.....	TEGT	QDET	.....	GER	PEE	.....		348		
GAKIGQG	KDN	VRVWL	KEN	PEI	S	DEI	DAK	IRAL	NG	V	EMHI	.....	TEGT	QDET	.....	GER	PEE	.....		348		
GAKIGQG	KDN	VRVWL	KEN	PEI	S	DEI	DAK	IRAL	NG	V	EMHI	.....	TEGT	QDET	.....	GER	PEE	.....		348		
GERIGQ	RDNC	REFL	RENA	L	AR	E	ENK	VREHL	G	VT	PMG	.....	AV	TLA	EEVEED	.....				352		
GDKIGQG	KANACK	YLKEN	PEI	AKT	L	DKK	L	REML	LN	PENM	.....	QLIA	ETSSA	ADDVE	..	FGAV	PEEF	.....		354		
GDKIGQG	KANACK	YLKEN	PEI	AKT	L	DKK	L	REML	LN	PENM	.....	QLIA	ETSSA	ADDVE	..	FGAV	PEEF	.....		354		
GNKIGQG	KNN	VIRY	FEEN	NQIA	E	E	IERN	I	REQL	LT	TGTN		GAVQ	..	I	EDEE	EPD		LL	LES	349	
GNKIGQG	KNN	VIRY	LEEN	PQ	ISTE	E	E	AV	I	REQL	LT	KASD		QTA	..	HDETEE	EPD		LL	LES	349	
GSKIGQG	KANA	AKYLEN	PEI	G	Q	E	E	EQ	IRAK	L	VT	TSAN		TKAT	P	V	AED	LAD	AD		I	347

logo

	NTDB id 600 KW2 RS01765 WP 011675413.1	...	387
	NTDB id 33406 SPT RS09430 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 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 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