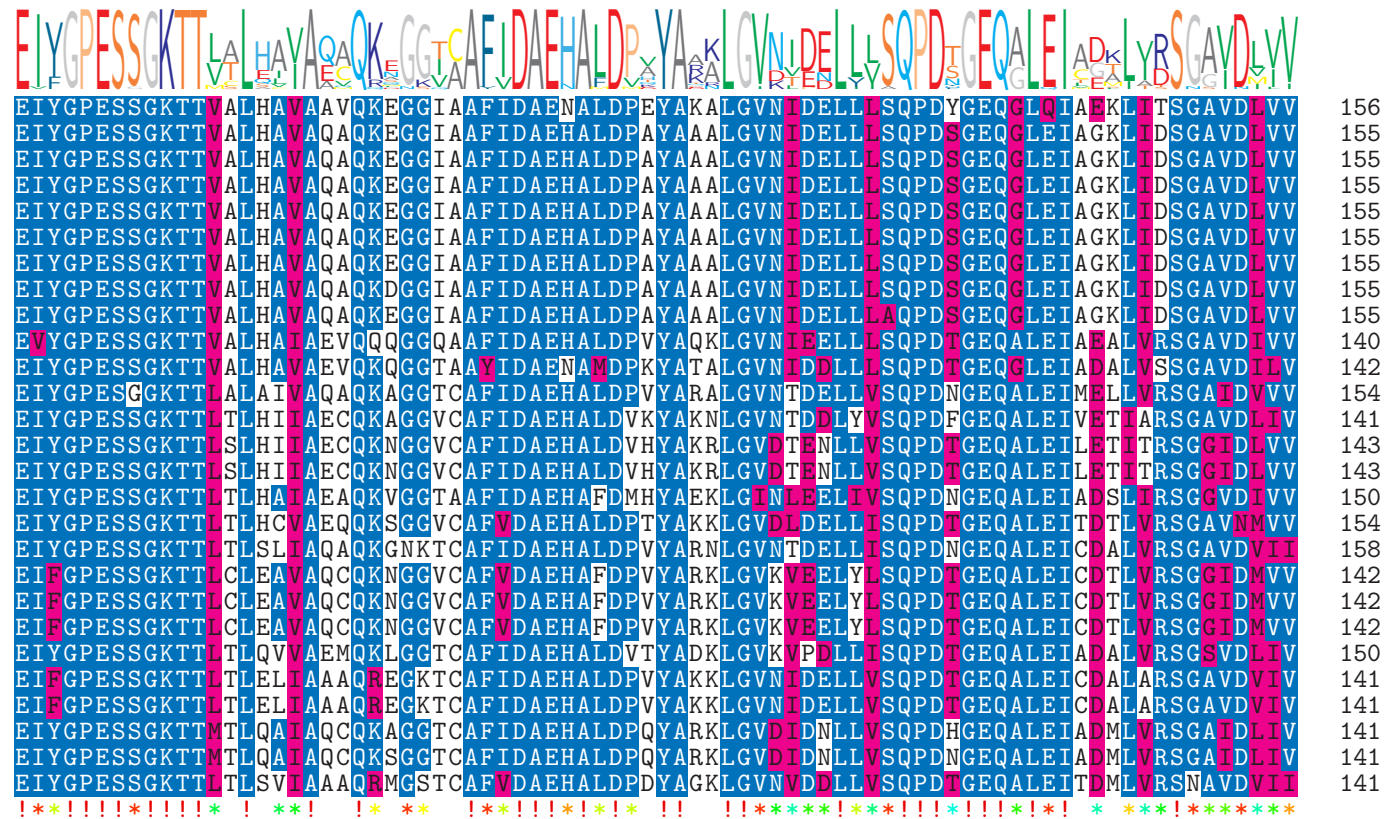


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NTDB	id	194	SPR	RS08825	WP	001085462.1	.MAK...	KPKKLEEISKKFGA	EREKALND	ALKL	IEKD	FGKGS	SIMRLGE	ER	AEQK	VQV	MSSGSL	ALD	IALG	SGGY	PKGR	II	75	
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NTDB	id	408	SMU	RS09530	WP	002262392.1	.MAK...	RIKKTEEITKKFGD	ERKKALDD	ALKN	IEKD	FGKGA	VMRLGE	ER	AEQK	VQV	MSSGSL	ALD	IALG	AGGY	PKGR	IV	75	
NTDB	id	453	Spy49	1753c	ACI62003.1		.MAK...	KLKKNEEITKKFGD	ERRKALDD	ALKN	IEKD	FGKGA	VMRLGE	ER	AEQK	VQV	MSSGSL	ALD	IALG	AGGY	PKGR	II	75	
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NTDB	id	625	LCA	RS02525	WP	011374196.1		MAKDERQAALDA	AALKK	IEKN	FGKGS	SIMRMGEK	VD	TQVST	VSSGSL	ALDE	ALGV	GGY	PRGR	IV			62	
NTDB	id	1313	DR	RS12030	WP	010888966.1	.MSKDA....	TKEISAPTDAK	ERSKAT	IET	AMSQIEKA	FGKGS	SIMKLGA	E	SKLD	VQV	VSTGSL	SLDL	ALGV	GGI	PRGR	IT	74	
NTDB	id	1245	Cj1673c	YP	002345041.1			MDDNKRKSL	DAALKS	LDKT	FGKGT	ILRLGDK	EVEQ	IDS	IGTGS	VGLD	LALG	IGGV	PKGR	II			61	
NTDB	id	1214	NCTC11637	00359	SQJ03206.1			MAIDEDKQK	KAISL	AIKQ	IDKV	FGKGA	LVRLGDK	QVEK	IDA	ISTGSL	GLDL	LALG	IGGV	PKGR	II		63	
NTDB	id	1211	C694	RS00795	WP	000963128.1		MAIDEDKQK	KAISL	AIKQ	IDKV	FGKGA	LVRLGDK	QVEK	IDS	ISTGSL	GLDL	LALG	IGGV	PKGR	II		63	
NTDB	id	1334	RAOC	RS04870	WP	004918236.1	.MA.....	KTETTSPTND	DKKKAL	AAVLEK	LDKT	YGKG	TVMKLGD	GTVDHN	IEV	IP	SGSL	GLDL	LALGV	GGY	PKGR	IV	70	
NTDB	id	422967	G3256	RS08925	WP	169640486.1	.MATAD....	LLSMNNKKS	ADKQK	ALDS	ALAQIERQ	FGKGS	SIMRLGA	E	GA	VQD	IKAS	STGSL	GLD	IALG	IGGL	PMGR	IV	74
NTDB	id	1389	A4U84	RS07560	WP	021112712.1	.MAENKKSSKNNT	TVVKQVEPEQ	KKQ	ALEA	ALAQIEKQ	FGKGS	SIMKLGT	E	QLD	IES	VSTGSL	GLDL	LALG	IGGL	PMGR	IV	78	
NTDB	id	1130	NGFG	RS03960	WP	003688695.1		MSDDKS	KALAA	ALAQIEKS	FGKGA	IMKMDGS	Q	Q	EEN	LEV	ISTGSL	GLDL	LALGV	GGL	PRGR	IV	62	
NTDB	id	1124	NGFG	RS03960	WP	003688695.1		MSDDKS	KALAA	ALAQIEKS	FGKGA	IMKMDGS	Q	Q	EEN	LEV	ISTGSL	GLDL	LALGV	GGL	PRGR	IV	62	
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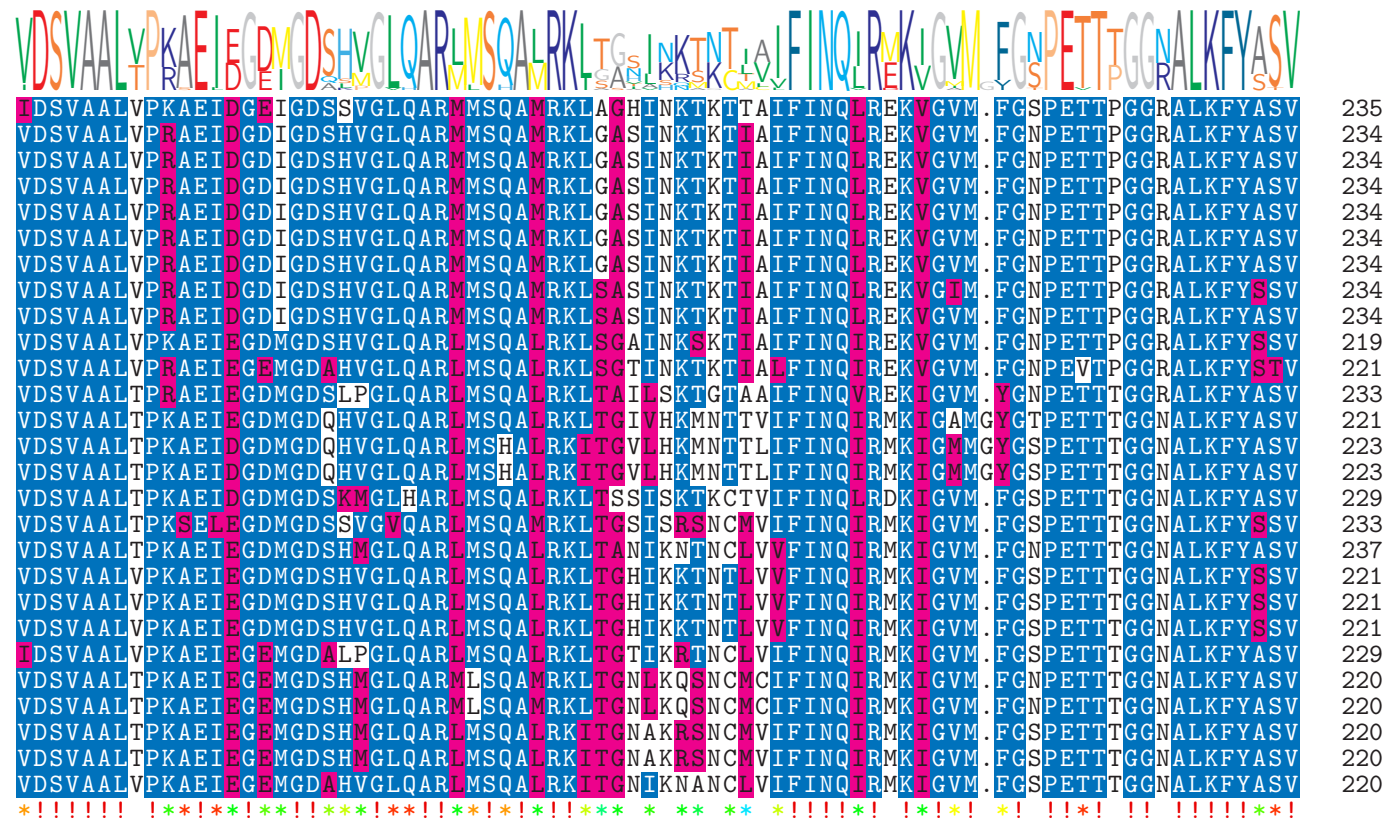
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NTDB id 527 SMSK321 RS11065 WP 001085454.1
NTDB id 499 SM12261 RS08315 WP 078228268.1
NTDB id 408 SMU RS09530 WP 002262392.1
NTDB id 453 Spy49 1753c ACI62003.1
NTDB id 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1313 DR RS12030 WP 010888966.1
NTDB id 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 422967 G3256 RS08925 WP 169640486.1
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

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NTDB id 600 KW2 RS01765 WP 011675413.1
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consensus



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NTDB id 269 KZH43 RS08665 WP 001085462.1	RLDVRG	NTQIKGTG	.DQKETN	VGKETK	IKVVKNKVAPPF	KEAVVE	IMYEGEGIS	KTGELLK	IASDLDI	IKKAGAW	YSYKDE	313
NTDB id 228 SPD RS09265 WP 001085462.1	RLDVRG	NTQIKGTG	.DQKETN	VGKETK	IKVVKNKVAPPF	KEAVVE	IMYEGEGIS	KTGELLK	IASDLDI	IKKAGAW	YSYKDE	313
NTDB id 194 SPR RS08825 WP 001085462.1	RLDVRG	NTQIKGTG	.DQKETN	VGKETK	IKVVKNKVAPPF	KEAVVE	IMYEGEGIS	KTGELLK	IASDLDI	IKKAGAW	YSYKDE	313
NTDB id 159 SP RS09750 WP 001085462.1	RLDVRG	NTQIKGTG	.DQKETN	VGKETK	IKVVKNKVAPPF	KEAVVE	IMYEGEGIS	KTGELLK	IASDLDI	IKKAGAW	YSYKDE	313
NTDB id 527 SMSK321 RS11065 WP 001085454.1	RLDVRG	STQIKGTG	.DQKDTN	VGKETK	IKVVKNKVAPPF	KEAFVE	IMYEGEGIS	KTGELLK	IASDLDI	IKKAGAW	YSYKDE	313
NTDB id 499 SM12261 RS08315 WP 078228268.1	RLDVRG	STQIKGTG	.DQKDTN	VGKETK	IKVVKNKVAPPF	KEAFVE	IMYEGEGIS	KTGELLK	IASDLDI	IKKAGAW	YSYKDE	313
NTDB id 408 SMU RS09530 WP 002262392.1	RLDVRG	NTQIKGTG	.EQKDSN	IGKETK	IKVVKNKVAPPF	KEAFVE	ITTYEGEGIS	RGTGELV	KIASDLG	IQKAGAW	YSYNGE	313
NTDB id 453 Spy49 1753c ACI62003.1	RLDVRG	TTQIKGTG	.DQKDSS	IGKETK	IKVVKNKVAPPF	KVAEVE	IMYEGEGIS	RGTGELV	KIASDLDI	IQKAGAW	FSYNGE	313
NTDB id 115 BSU 16940 NP 389576.2	RLEVRRA	AEQLKQGN	.....	DVMGNK	TKIKVVKNKVAPPF	RTAEVD	IMYEGEGIS	KEGEI	IDLGT	ELDIVQ	KS	294
NTDB id 625 LCA RS02525 WP 011374196.1	RLEVRRA	ETIKNGT		DMIGNR	ARIKVVKNKVAPPF	KVAEVD	IMYGGIS	RGTGELV	DMAVEK	DI	INK	296
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NTDB id 1214 NCTC11637 00359 SQJ03206.1	RIDIRRIA		AL.KQN	EQHIGN	RAKAKVVKNKVAPPF	REA	AEFDIM	FEGEGIS	KEGEI	IDYGV	KLDIV	298
NTDB id 1211 C694 RS00795 WP 000963128.1	RIDIRRIA	....	SL.KQN	EQHIGN	RAKAKVVKNKVAPPF	REA	AEFDIM	FEGEGIS	KEGEI	IDYGV	KLDIV	298
NTDB id 1334 RAOC RS04870 WP 004918236.1	RIDIRRS	LSDTGK	IKDKSG	EVIGNR	TKVKVVKNKVAPPF	KS	AEFDIM	YEGEGIS	VSKVGE	ILDV	ATDLD	309
NTDB id 422967 G3256 RS08925 WP 169640486.1	RLDIRR	IG....	AL.KDR	DEVVGN	HTRVKVVKNKVA	APFQ	VEFDIM	YEGEGIS	KMGELL	DLG	VATGV	308
NTDB id 1389 A4U84 RS07560 WP 021112712.1	RLDIRR	RCG....	VV.KDG	DEIIG	SETKVKVVKNKVAPPF	REVQ	FDIM	YEGEGIS	RMNELL	ILAE	ANGF	312
NTDB id 1130 NGFG RS03960 WP 003688695.1	RLDIRR	TG....	SI.KKG	EEVLGN	ETRVKVIKNKVAPPF	RQ	AEFDIL	YEGEGIS	WE	GELID	IGVKN	296
NTDB id 1124 NGFG RS03960 WP 003688695.1	RLDIRR	TG....	SI.KKG	EEVLGN	ETRVKVIKNKVAPPF	RQ	AEFDIL	YEGEGIS	WE	GELID	IGVKN	296
NTDB id 1123 OK783 RS03845 WP 003688695.1	RLDIRR	TG....	SI.KKG	EEVLGN	ETRVKVIKNKVAPPF	RQ	AEFDIL	YEGEGIS	WE	GELID	IGVKN	296
NTDB id 1427 RS RS02760 WP 011000510.1	RLDIRR	IG....	SI.KKG	DEVVGN	ETKVKVVKNKVAPPF	REA	IFDIL	YAGVS	REGEI	IDL	GVEAK	304
NTDB id 1165 A1552VC RS01565 WP 000344154.1	RLDIRR	TG....	AI.KEG	EEVVG	NETRIKVVKNK	IAAPF	KEANTQ	IMYGG	GFNR	REGEL	IDL	295
NTDB id 1142 GTF74 RS11550 WP 000344154.1	RLDIRR	TG....	AI.KEG	EEVVG	NETRIKVVKNK	IAAPF	KEANTQ	IMYGG	GFNR	REGEL	IDL	295
NTDB id 1022 ACIAD RS06390 WP 004925639.1	RLDIRR	IG....	QV.KEG	DEIIG	SETKVKVVKNK	MAPPF	REA	IFQIL	YGKGV	NQLG	ELVD	295
NTDB id 1074 ABD1 RS10195 WP 000344167.1	RLDIRR	IG....	QV.KEG	DEIIG	SETKVKVVKNK	MAPPF	KEA	IFQIL	YGKGT	NQLG	ELVD	295
NTDB id 1205 PSJM300 05545 AFN77183.1	RLDIRR	TG....	AV.KEG	DEVVGS	ETRVKVVKNKVAPPF	RQ	AEFQIL	YGKGI	YRNGE	IIDL	G	295
consensus	!***!*			*	**	*****!***!!*!!*!!*	*	*****!*	*****	*****	***	***

logo

NTDB id 600 KW2 RS01765 WP 011675413.1	KIGQGA	EKAKNYLKEHQDV	DEIDHKVRAAHG	LDDSEVAETEEETTA	...	SKTKAKAKKEEKAVETEEIELELED	...	387	
NTDB id 269 KZH43 RS08665 WP 001085462.1	KIGQGS	ENAKKYLAEHPEIF	DEIDKQVRSKFGL	IDGEEVSEQDTENKK	...	DE	...PKKEEA..VNEEVPLDLGDELE	383	
NTDB id 228 SPD RS09265 WP 001085462.1	KIGQGS	ENAKKYLAEHPEIF	DEIDKQVRSKFGL	IDGEEVSEQDTENKK	...	DE	...PKKEEA..VNEEVPLDLGDELE	383	
NTDB id 194 SPR RS08825 WP 001085462.1	KIGQGS	ENAKKYLAEHPEIF	DEIDKQVRSKFGL	IDGEEVSEQDTENKK	...	DE	...PKKEEA..VNEEVPLDLGDELE	383	
NTDB id 159 SP RS09750 WP 001085462.1	KIGQGS	ENAKKYLAEHPEIF	DEIDKQVRSKFGL	IDGEEVSEQDTENKK	...	DE	...PKKEEA..VNEEVPLDLGDELE	383	
NTDB id 527 SMSK321 RS11065 WP 001085454.1	KIGQGS	ENAKKYLADNPEVFAE	IDHQVRVQFGL	IDGEEAAE	...	SKK	...DE	...VAQVDS..VNEEVTLDLGDELE	379
NTDB id 499 SM12261 RS08315 WP 078228268.1	KIGQGS	ENAKKYLADNPEIF	DEIDHQVRVQFGL	IDGEEIAE	...	SKK	...DE	...AAQVDS..VNEEVTLDLGDELE	379
NTDB id 408 SMU RS09530 WP 002262392.1	KIGQGS	ENAKKFLADNPEIF	DDIDHKVVRVQYGL	IEEDNTEEKQSSKEK	...	ETDEK	..ADKNLVLELDDTIE	380	
NTDB id 453 Spy49 1753c ACI62003.1	KIGQGS	ENAKRYLADHPQLF	DEIDRKVRVKFGL	LEESEEEESAMAVASE	...	E	...TDDLALDLNGIE	375	
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NTDB id 625 LCA RS02525 WP 011374196.1	RIGQGR	ENAKNYLADHEDVE	DEVRLKVRAAYG	ISDVPEEDLPTTEDE	...	QI	..NILPDDST	355	
NTDB id 1313 DR RS12030 WP 010888966.1	RIGQGKEK	TIAYIAERPEMEQE	IRDRVMAAIRAGNAGE	APALAPAPAAPEAA	...	EA	...	363	
NTDB id 1245 Cj1673c YP 002345041.1	KLGGGR	ENSKAFLKENPEIA	DEITKAIQNSMG	IEGMI	...	SGSEDDE	..GEE	343	
NTDB id 1214 NCTC11637 00359 SQJ03206.1	KLGGGR	ENAKALLKEDKAL	ADEITLKI	KESIGSNEEI	...	MPLPDEP	..LEEME	347	
NTDB id 1211 C694 RS00795 WP 000963128.1	KLGGGR	ENAKALLKEDKAL	ADEITLKI	KESIGSNEEI	...	MPLPDEP	..LEEME	347	
NTDB id 1334 RAOC RS04870 WP 004918236.1	KLGGGR	DTVKELIKDNPELA	EELEAKIREKLQAK	...	...	...	...	343	
NTDB id 422967 G3256 RS08925 WP 169640486.1	RIGQGR	ENAKSFLKENTQMA	LEIEDKIRAAGH	LDFDM	...	PAH	...EKT	359	
NTDB id 1389 A4U84 RS07560 WP 021112712.1	KIGQGN	NAVKWLKENPEIA	DKLEQEI	RNTLASNPNS	...	VLKATASDSN	DES	372	
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NTDB id 1124 NGFG RS03960 WP 003688695.1	KIGQKDN	VRVWLKENPEIS	DEIDAKIRALNG	VEMHI	...	TEGTQDET	DGER	348	
NTDB id 1123 OK783 RS03845 WP 003688695.1	KIGQKDN	VRVWLKENPEIS	DEIDAKIRALNG	VEMHI	...	TEGTQDET	DGER	348	
NTDB id 1427 RS RS02760 WP 011000510.1	RIGQGR	DNCREFLRENAEL	AREIENKVREHL	GVTPMG	...	AVTLA	..EEVEED	352	
NTDB id 1165 A1552VC RS01565 WP 000344154.1	KIGQGN	ANACKYILKENPEIA	KTLDKKLREML	LNPNENM	...	QLIAETSSAA	DDVEFGAVP	354	
NTDB id 1142 GTF74 RS11550 WP 000344154.1	KIGQGN	ANACKYILKENPEIA	KTLDKKLREML	LNPNENM	...	QLIAETSSAA	DDVEFGAVP	354	
NTDB id 1022 ACIAD RS06390 WP 004925639.1	KIGQGN	NVIRYLEENPQIS	TEIEAVIREQL	LLTKASD	...	QTAA	..HDETE	349	
NTDB id 1074 ABD1 RS10195 WP 000344167.1	KIGQGN	NVIRYFEENNQIA	EEIERNIREQL	LLTTGTN	...	GAVQ	..I	349	
NTDB id 1205 PSJM300 05545 AFN77183.1	KIGQGN	ANAACKYILENPEI	IGQIEQQIRAK	LLVTSAN	...	TKATPVAED	LADADI	347	
consensus	**	!!	*****	**	*****	*****	**	**	

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NTDB id 269 KZH43 RS08665 WP 001085462.1	IEIEE		388
NTDB id 228 SPD RS09265 WP 001085462.1	IEIEE		388
NTDB id 194 SPR RS08825 WP 001085462.1	IEIEE		388
NTDB id 159 SP RS09750 WP 001085462.1	IEIEE		388
NTDB id 527 SMSK321 RS11065 WP 001085454.1	IEIEE		384
NTDB id 499 SM12261 RS08315 WP 078228268.1	IEIEE		384
NTDB id 408 SMU RS09530 WP 002262392.1	LED..		383
NTDB id 453 Spy49 1753c ACI62003.1	IED..		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 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 422967 G3256 RS08925 WP 169640486.1	.....		359
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