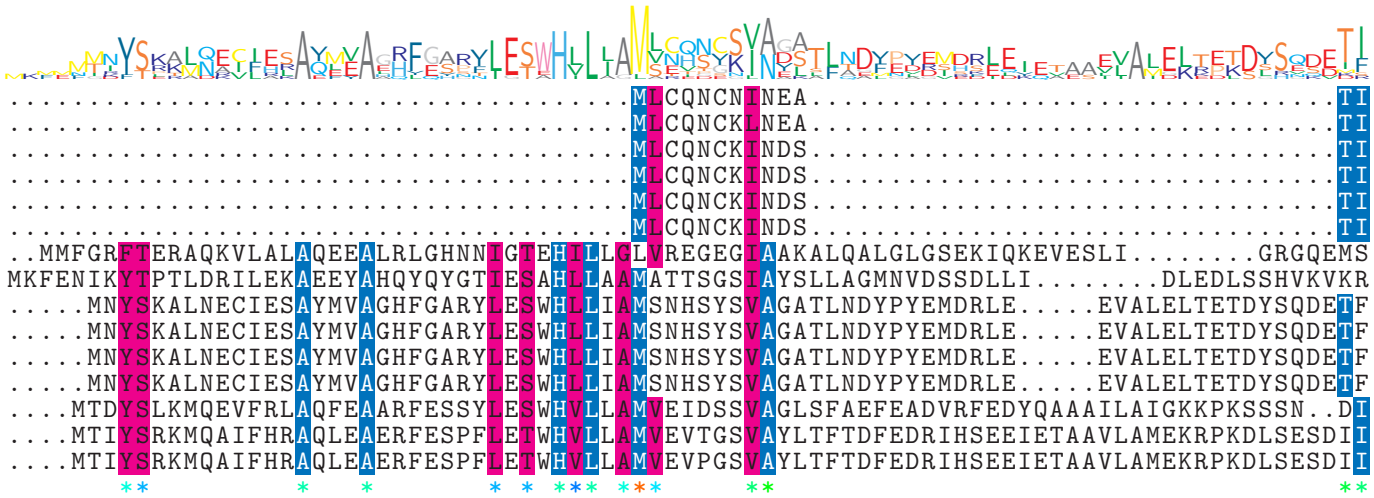


logo

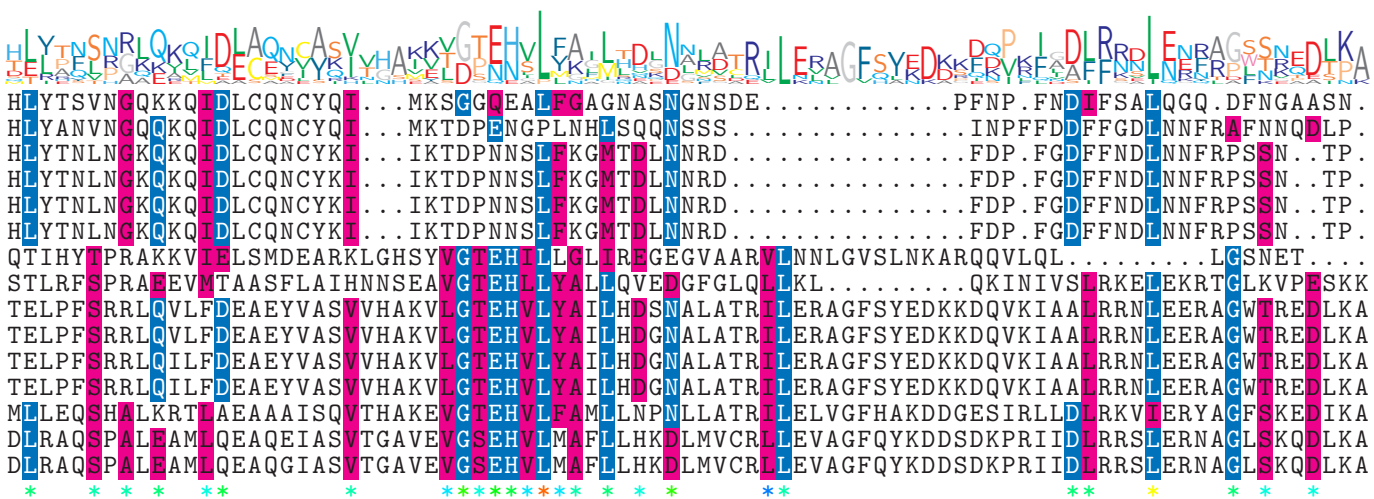
NTDB id 601 KW2 RS02615 WP 021036805.1
NTDB id 378 SMU RS02690 WP 002263569.1
NTDB id 281 KZH43 RS03550 WP 000882517.1
NTDB id 245 SPD RS03860 WP 000882517.1
NTDB id 243 SPR RS03635 WP 000882517.1
NTDB id 241 SP RS04015 WP 000882523.1
NTDB id 85 BSU 00860 NP 387967.1
NTDB id 610 V4T04 RS10165 WP 012897346.1
NTDB id 287 SP RS11210 WP 001109712.1
NTDB id 97838 R8619 RS10620 WP 001109708.1
NTDB id 290 KZH43 RS10025 WP 001109677.1
NTDB id 289 SPD RS10700 WP 001109677.1
NTDB id 377 SMU RS09275 WP 002262344.1
NTDB id 297 STER RS00545 WP 011680614.1
NTDB id 329 STU RS10020 WP 011225298.1
consensus



13
13
13
13
13
13
75
77
75
75
75
75
79
81
81

logo

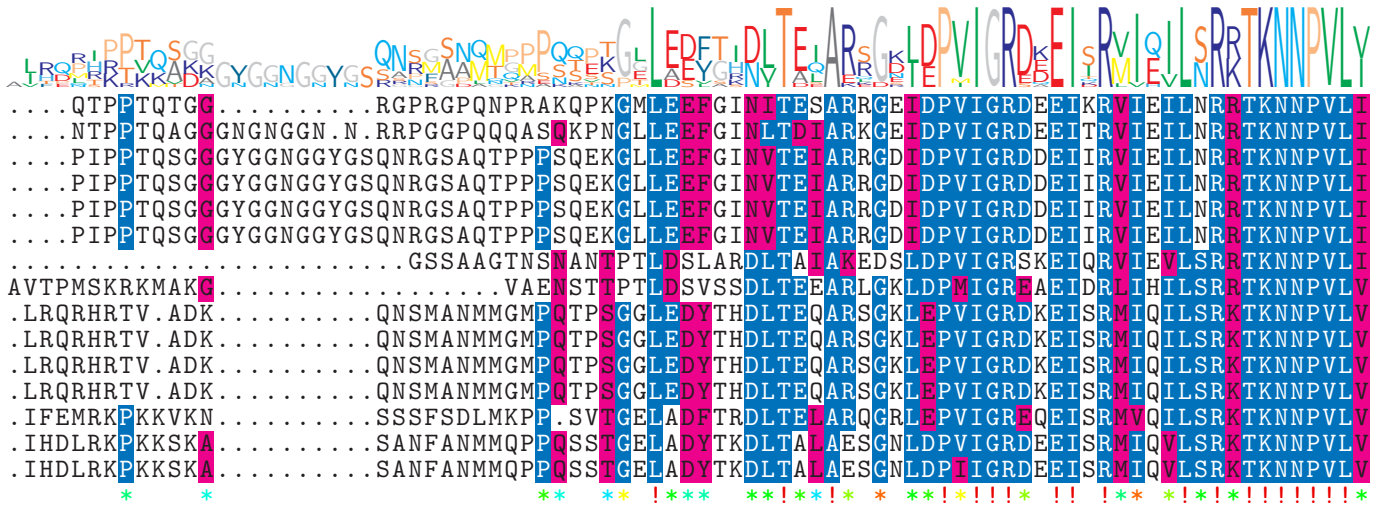
NTDB id 601 KW2 RS02615 WP 021036805.1
NTDB id 378 SMU RS02690 WP 002263569.1
NTDB id 281 KZH43 RS03550 WP 000882517.1
NTDB id 245 SPD RS03860 WP 000882517.1
NTDB id 243 SPR RS03635 WP 000882517.1
NTDB id 241 SP RS04015 WP 000882523.1
NTDB id 85 BSU 00860 NP 387967.1
NTDB id 610 V4T04 RS10165 WP 012897346.1
NTDB id 287 SP RS11210 WP 001109712.1
NTDB id 97838 R8619 RS10620 WP 001109708.1
NTDB id 290 KZH43 RS10025 WP 001109677.1
NTDB id 289 SPD RS10700 WP 001109677.1
NTDB id 377 SMU RS09275 WP 002262344.1
NTDB id 297 STER RS00545 WP 011680614.1
NTDB id 329 STU RS10020 WP 011225298.1
consensus



80
79
76
76
76
76
147
153
160
160
160
160
164
166
166

logo

NTDB id 601 KW2 RS02615 WP 021036805.1
NTDB id 378 SMU RS02690 WP 002263569.1
NTDB id 281 KZH43 RS03550 WP 000882517.1
NTDB id 245 SPD RS03860 WP 000882517.1
NTDB id 243 SPR RS03635 WP 000882517.1
NTDB id 241 SP RS04015 WP 000882523.1
NTDB id 85 BSU 00860 NP 387967.1
NTDB id 610 V4T04 RS10165 WP 012897346.1
NTDB id 287 SP RS11210 WP 001109712.1
NTDB id 97838 R8619 RS10620 WP 001109708.1
NTDB id 290 KZH43 RS10025 WP 001109677.1
NTDB id 289 SPD RS10700 WP 001109677.1
NTDB id 377 SMU RS09275 WP 002262344.1
NTDB id 297 STER RS00545 WP 011680614.1
NTDB id 329 STU RS10020 WP 011225298.1
consensus



151
158
157
157
157
157
207
220
233
233
233
237
240
240

logo

NTDB id 601 KW2 RS02615 WP 021036805.1
NTDB id 378 SMU RS02690 WP 002263569.1
NTDB id 281 KZH43 RS03550 WP 000882517.1
NTDB id 245 SPD RS03860 WP 000882517.1
NTDB id 243 SPR RS03635 WP 000882517.1
NTDB id 241 SP RS04015 WP 000882523.1
NTDB id 85 BSU 00860 NP 387967.1
NTDB id 610 V4T04 RS10165 WP 012897346.1
NTDB id 287 SP RS11210 WP 001109712.1
NTDB id 97838 R8619 RS10620 WP 001109708.1
NTDB id 290 KZH43 RS10025 WP 001109677.1
NTDB id 289 SPD RS10700 WP 001109677.1
NTDB id 377 SMU RS09275 WP 002262344.1
NTDB id 297 STER RS00545 WP 011680614.1
NTDB id 329 STU RS10020 WP 011225298.1
consensus



236
243
242
242
242
242
291
305
318
318
318
318
322
325
325

logo

NTDB id 601 KW2 RS02615 WP 021036805.1
NTDB id 378 SMU RS02690 WP 002263569.1
NTDB id 281 KZH43 RS03550 WP 000882517.1
NTDB id 245 SPD RS03860 WP 000882517.1
NTDB id 243 SPR RS03635 WP 000882517.1
NTDB id 241 SP RS04015 WP 000882523.1
NTDB id 85 BSU 00860 NP 387967.1
NTDB id 610 V4T04 RS10165 WP 012897346.1
NTDB id 287 SP RS11210 WP 001109712.1
NTDB id 97838 R8619 RS10620 WP 001109708.1
NTDB id 290 KZH43 RS10025 WP 001109677.1
NTDB id 289 SPD RS10700 WP 001109677.1
NTDB id 377 SMU RS09275 WP 002262344.1
NTDB id 297 STER RS00545 WP 011680614.1
NTDB id 329 STU RS10020 WP 011225298.1
consensus



320
327
326
326
326
326
326
376
390
403
403
403
403
407
410
410

logo

NTDB id 601 KW2 RS02615 WP 021036805.1
NTDB id 378 SMU RS02690 WP 002263569.1
NTDB id 281 KZH43 RS03550 WP 000882517.1
NTDB id 245 SPD RS03860 WP 000882517.1
NTDB id 243 SPR RS03635 WP 000882517.1
NTDB id 241 SP RS04015 WP 000882523.1
NTDB id 85 BSU 00860 NP 387967.1
NTDB id 610 V4T04 RS10165 WP 012897346.1
NTDB id 287 SP RS11210 WP 001109712.1
NTDB id 97838 R8619 RS10620 WP 001109708.1
NTDB id 290 KZH43 RS10025 WP 001109677.1
NTDB id 289 SPD RS10700 WP 001109677.1
NTDB id 377 SMU RS09275 WP 002262344.1
NTDB id 297 STER RS00545 WP 011680614.1
NTDB id 329 STU RS10020 WP 011225298.1
consensus



397
404
403
403
403
403
461
470
466
466
466
466
468
471
471

logo

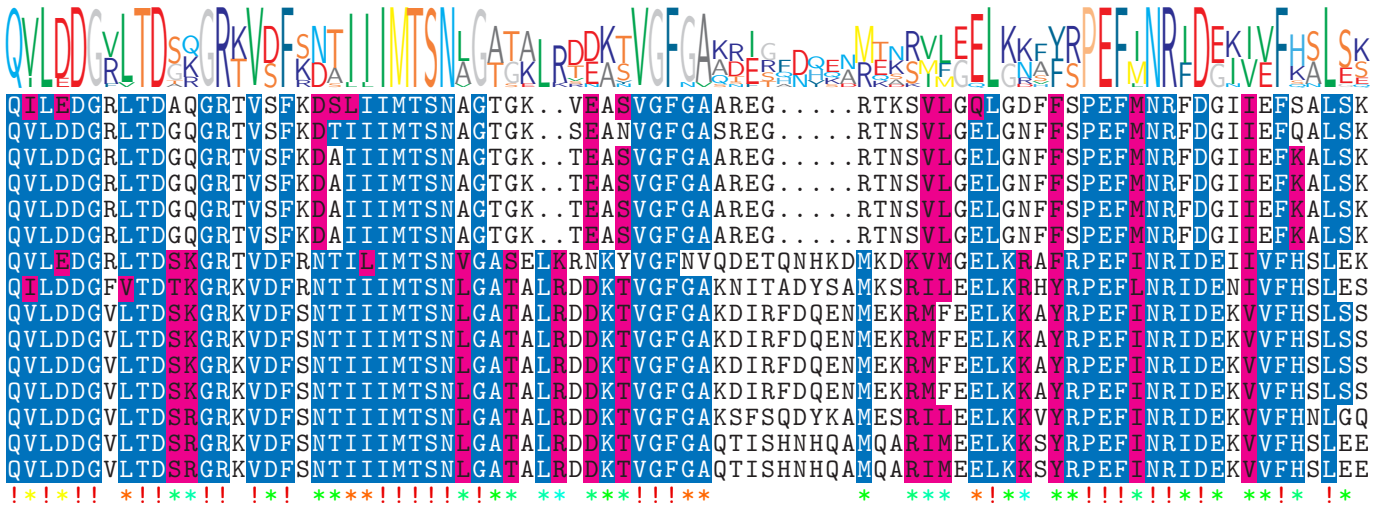
NTDB id 601 KW2 RS02615 WP 021036805.1	EVTDEDMPVITEKDI	EQIIVEQKT	QIPVGD	LKEKE	EQTQL	INLAD	DLKA	HVIGQDE	AVDKI	ISKA	IRRSRVGL	GKPNR	PIGSFL	LVGP	482
NTDB id 378 SMU RS02690 WP 002263569.1	KLDKENTPVITEKNI	IEVIVEQKT	NIPVGEL	KEKE	EQSQL	IHLAD	DLKTR	VIGQDA	AVDKI	AKAIRR	NRVGL	GTPNR	PIGSFL	LVGP	489
NTDB id 281 KZH43 RS03550 WP 000882517.1	KITDQDTP	IIESEKTI	IEHIEQKT	NIPVGD	LKEKE	EQSQL	IHLAED	LKSHV	IGQDD	AVDKI	AKAIRR	NRVGL	GTPNR	PIGSFL	488
NTDB id 245 SPD RS03860 WP 000882517.1	KITDQDTP	IIESEKTI	IEHIEQKT	NIPVGD	LKEKE	EQSQL	IHLAED	LKSHV	IGQDD	AVDKI	AKAIRR	NRVGL	GTPNR	PIGSFL	488
NTDB id 243 SPR RS03635 WP 000882517.1	KITDQDTP	IIESEKTI	IEHIEQKT	NIPVGD	LKEKE	EQSQL	IHLAED	LKSHV	IGQDD	AVDKI	AKAIRR	NRVGL	GTPNR	PIGSFL	488
NTDB id 241 SP RS04015 WP 000882523.1	KITDQDTP	IIESEKTI	IEHIEQKT	NIPVGD	LKEKE	EQSQL	IHLAED	LKSHV	IGQDD	AVDKI	AKAIRR	NRVGL	GTPNR	PIGSFL	488
NTDB id 85 BSU 00860 NP 387967.1	EKQQQENSE	VTVD	IAMV	VSSW	TGVP	VS	KA	IAQT	ETD	KL	LN	MEN	ILH	SRVIGQDE	546
NTDB id 610 V4T04 RS10165 WP 012897346.1	SVKEDKRQEV	TDQAV	VAVAST	LT	TGVP	IT	QMT	KSE	SDRL	IN	LE	KE	LHKRV	VQEE	555
NTDB id 287 SP RS11210 WP 001109712.1	EVPV.YKD	LVTESD	ILTT	LSRL	SGIP	VQKL	TQTD	AKKY	LN	LEA	ELH	KRVIGQD	QAVSS	ISRA	550
NTDB id 97838 R8619 RS10620 WP 001109708.1	EVPV.YKD	LVTESD	ILTT	LSRL	SGIP	VQKL	TQTD	AKKY	LN	LEA	ELH	KRVIGQD	QAVSS	ISRA	550
NTDB id 290 KZH43 RS10025 WP 001109677.1	EVPV.YKD	LVTESD	ILTT	LSRL	SGIP	VQKL	TQTD	AKKY	LN	LEA	ELH	KRVIGQD	QAVSS	ISRA	550
NTDB id 289 SPD RS10700 WP 001109677.1	EVPV.YKD	LVTESD	ILTT	LSRL	SGIP	VQKL	TQTD	AKKY	LN	LEA	ELH	KRVIGQD	QAVSS	ISRA	550
NTDB id 377 SMU RS09275 WP 002262344.1	KPLLKKRAE	VKEED	ILAT	LSKL	SGIP	VKKL	TQAD	SKKY	LN	LER	ELH	KRVIGQD	QAVSS	ISRA	553
NTDB id 297 STER RS00545 WP 011680614.1	KAKFPKPA	LVDADQ	IMQT	LSRL	SGIP	VEK	MTQT	DSKRY	LN	LE	ELH	KRVIGQD	QAVSA	ISRA	556
NTDB id 329 STU RS10020 WP 011225298.1	KAKFPKPA	LVDADQ	IMQT	LSRL	SGIP	VEK	MTQT	DSKRY	LN	LE	ELH	KRVIGQD	QAVSA	ISRA	556
consensus	*	*****	*	**	***!	*	*	*	*****	!!	*****	!!	!!	!!	

logo

NTDB id 601 KW2 RS02615 WP 021036805.1	TGVGKTELAKALAE	VLFG	DESS	MI	RFDM	SEYMEK	HAAS	SR	NG	APPG	YVGY	DE	EG	Q	TEKVR	NK	PYS	V	L	DE	VEKA	HPD	V	F	N	M	L	567
NTDB id 378 SMU RS02690 WP 002263569.1	TGVGKTELAKALAE	VLFG	DESS	MI	RFDM	SEYMEK	HAAS	SR	NG	APPG	YVGY	DE	EG	Q	TEKVR	NK	PYS	V	L	DE	VEKA	HPD	V	F	N	M	L	574
NTDB id 281 KZH43 RS03550 WP 000882517.1	TGVGKTELAKALAE	VLFG	DESS	MI	RFDM	SEYMEK	HAAS	SR	NG	APPG	YVGY	DE	EG	Q	TEKVR	NK	PYS	V	L	DE	VEKA	HPD	V	F	N	M	L	573
NTDB id 245 SPD RS03860 WP 000882517.1	TGVGKTELAKALAE	VLFG	DESS	MI	RFDM	SEYMEK	HAAS	SR	NG	APPG	YVGY	DE	EG	Q	TEKVR	NK	PYS	V	L	DE	VEKA	HPD	V	F	N	M	L	573
NTDB id 243 SPR RS03635 WP 000882517.1	TGVGKTELAKALAE	VLFG	DESS	MI	RFDM	SEYMEK	HAAS	SR	NG	APPG	YVGY	DE	EG	Q	TEKVR	NK	PYS	V	L	DE	VEKA	HPD	V	F	N	M	L	573
NTDB id 241 SP RS04015 WP 000882523.1	TGVGKTELAKALAE	VLFG	DESS	MI	RFDM	SEYMEK	HAAS	SR	NG	APPG	YVGY	DE	EG	Q	TEKVR	NK	PYS	V	L	DE	VEKA	HPD	V	F	N	M	L	573
NTDB id 85 BSU 00860 NP 387967.1	TGVGKTELAKALAE	VLFG	DESS	MI	RFDM	SEYMEK	HAAS	SR	NG	APPG	YVGY	DE	EG	Q	TEKVR	NK	PYS	V	L	DE	VEKA	HPD	V	F	N	M	L	631
NTDB id 610 V4T04 RS10165 WP 012897346.1	TGVGKTELAKALAE	VLFG	DESS	MI	RFDM	SEYMEK	HAAS	SR	NG	APPG	YVGY	DE	EG	Q	TEKVR	NK	PYS	V	L	DE	VEKA	HPD	V	F	N	M	L	640
NTDB id 287 SP RS11210 WP 001109712.1	TGVGKTELAKALAE	VLFG	DESS	MI	RFDM	SEYMEK	HAAS	SR	NG	APPG	YVGY	DE	EG	Q	TEKVR	NK	PYS	V	L	DE	VEKA	HPD	V	F	N	M	L	635
NTDB id 97838 R8619 RS10620 WP 001109708.1	TGVGKTELAKALAE	VLFG	DESS	MI	RFDM	SEYMEK	HAAS	SR	NG	APPG	YVGY	DE	EG	Q	TEKVR	NK	PYS	V	L	DE	VEKA	HPD	V	F	N	M	L	635
NTDB id 290 KZH43 RS10025 WP 001109677.1	TGVGKTELAKALAE	VLFG	DESS	MI	RFDM	SEYMEK	HAAS	SR	NG	APPG	YVGY	DE	EG	Q	TEKVR	NK	PYS	V	L	DE	VEKA	HPD	V	F	N	M	L	635
NTDB id 289 SPD RS10700 WP 001109677.1	TGVGKTELAKALAE	VLFG	DESS	MI	RFDM	SEYMEK	HAAS	SR	NG	APPG	YVGY	DE	EG	Q	TEKVR	NK	PYS	V	L	DE	VEKA	HPD	V	F	N	M	L	635
NTDB id 377 SMU RS09275 WP 002262344.1	TGVGKTELAKALAE	VLFG	DESS	MI	RFDM	SEYMEK	HAAS	SR	NG	APPG	YVGY	DE	EG	Q	TEKVR	NK	PYS	V	L	DE	VEKA	HPD	V	F	N	M	L	638
NTDB id 297 STER RS00545 WP 011680614.1	TGVGKTELAKALAE	VLFG	DESS	MI	RFDM	SEYMEK	HAAS	SR	NG	APPG	YVGY	DE	EG	Q	TEKVR	NK	PYS	V	L	DE	VEKA	HPD	V	F	N	M	L	641
NTDB id 329 STU RS10020 WP 011225298.1	TGVGKTELAKALAE	VLFG	DESS	MI	RFDM	SEYMEK	HAAS	SR	NG	APPG	YVGY	DE	EG	Q	TEKVR	NK	PYS	V	L	DE	VEKA	HPD	V	F	N	M	L	641
consensus	!!!!!!!!	*****	!!	*	*****	!!!!!!!!	*****	!!	*****	!!!!!!!!	*****	!!	*****	!!!!!!!!	*****	!!	*****	!!!!!!!!	*****	!!!!!!!!	*****	!!!!!!!!	*****	!!!!!!!!	*****	!!!!!!!!	*****	

logo

NTDB id 601 KW2 RS02615 WP 021036805.1
NTDB id 378 SMU RS02690 WP 002263569.1
NTDB id 281 KZH43 RS03550 WP 000882517.1
NTDB id 245 SPD RS03860 WP 000882517.1
NTDB id 243 SPR RS03635 WP 000882517.1
NTDB id 241 SP RS04015 WP 000882523.1
NTDB id 85 BSU 00860 NP 387967.1
NTDB id 610 V4T04 RS10165 WP 012897346.1
NTDB id 287 SP RS11210 WP 001109712.1
NTDB id 97838 R8619 RS10620 WP 001109708.1
NTDB id 290 KZH43 RS10025 WP 001109677.1
NTDB id 289 SPD RS10700 WP 001109677.1
NTDB id 377 SMU RS09275 WP 002262344.1
NTDB id 297 STER RS00545 WP 011680614.1
NTDB id 329 STU RS10020 WP 011225298.1
consensus



645
652
651
651
651
651
716
725
720
720
720
720
723
726
726

logo

NTDB id 601 KW2 RS02615 WP 021036805.1
NTDB id 378 SMU RS02690 WP 002263569.1
NTDB id 281 KZH43 RS03550 WP 000882517.1
NTDB id 245 SPD RS03860 WP 000882517.1
NTDB id 243 SPR RS03635 WP 000882517.1
NTDB id 241 SP RS04015 WP 000882523.1
NTDB id 85 BSU 00860 NP 387967.1
NTDB id 610 V4T04 RS10165 WP 012897346.1
NTDB id 287 SP RS11210 WP 001109712.1
NTDB id 97838 R8619 RS10620 WP 001109708.1
NTDB id 290 KZH43 RS10025 WP 001109677.1
NTDB id 289 SPD RS10700 WP 001109677.1
NTDB id 377 SMU RS09275 WP 002262344.1
NTDB id 297 STER RS00545 WP 011680614.1
NTDB id 329 STU RS10020 WP 011225298.1
consensus



729
736
735
735
735
735
801
810
805
805
805
805
808
811
811

logo

NTDB id 601 KW2 RS02615 WP 021036805.1	ISNQTQETAETTDDEEVPAE	748
NTDB id 378 SMU RS02690 WP 002263569.1	VIKASNK.VETVTKATSD.	753
NTDB id 281 KZH43 RS03550 WP 000882517.1	QIKSAKK.AEVKSSEKEK.	752
NTDB id 245 SPD RS03860 WP 000882517.1	QIKSAKK.AEVKSSEKEK.	752
NTDB id 243 SPR RS03635 WP 000882517.1	QIKSAKK.AEVKSSEKEK.	752
NTDB id 241 SP RS04015 WP 000882523.1	QIKSAKK.AEVKSSEKEK.	752
NTDB id 85 BSU 00860 NP 387967.1	VVKTTAKTN.....	810
NTDB id 610 V4T04 RS10165 WP 012897346.1	KIAQIV.....	816
NTDB id 287 SP RS11210 WP 001109712.1	KFDIA.....	810
NTDB id 97838 R8619 RS10620 WP 001109708.1	KFDIA.....	810
NTDB id 290 KZH43 RS10025 WP 001109677.1	KFDIA.....	810
NTDB id 289 SPD RS10700 WP 001109677.1	KFDIA.....	810
NTDB id 377 SMU RS09275 WP 002262344.1	KFDIV.....	813
NTDB id 297 STER RS00545 WP 011680614.1	TFTVV.....	816
NTDB id 329 STU RS10020 WP 011225298.1	TFTVV.....	816
consensus		



-  non conserved
-  similar
-  ≥ 50% conserved