

logo

NTDB id 1313 DR RS12030 WP 010888966.1	.MSKD...ATKEISAPTDAK	ERSKAIETAMSQ	IEKAFGKGSIMKLGAE	.SKLDVQVV	VSTGSLSLDLALGV	GGIPRGRIT	74
NTDB id 600 KW2 RS01765 WP 011675413.1	MATKK...KTNFDDITKKYGA	ERDKALADALAL	IEKDFGKGSIMRLGEA	.ANQKVSV	VSSGSLALDIALGAGGY	PKGRIV	76
NTDB id 269 KZH43 RS08665 WP 001085462.1	.MAKK...PKKLEEISKKFGA	EREKALNDALKL	IEKDFGKGSIMRLGER	.AEQKVQV	MSSGSLALDIALGSGGY	PKGRII	75
NTDB id 228 SPD RS09265 WP 001085462.1	.MAKK...PKKLEEISKKFGA	EREKALNDALKL	IEKDFGKGSIMRLGER	.AEQKVQV	MSSGSLALDIALGSGGY	PKGRII	75
NTDB id 194 SPR RS08825 WP 001085462.1	.MAKK...PKKLEEISKKFGA	EREKALNDALKL	IEKDFGKGSIMRLGER	.AEQKVQV	MSSGSLALDIALGSGGY	PKGRII	75
NTDB id 159 SP RS09750 WP 001085462.1	.MAKK...PKKLEEISKKFGA	EREKALNDALKL	IEKDFGKGSIMRLGER	.AEQKVQV	MSSGSLALDIALGSGGY	PKGRII	75
NTDB id 499 SM12261 RS08315 WP 078228268.1	.MAKK...PKKLDEISKKFGA	EREKALNDALKL	IEKDFGKGSIMRLGER	.AEQKVQV	MSSGSLALDIALGSGGY	PKGRII	75
NTDB id 527 SMSK321 RS11065 WP 001085454.1	.MAKK...PKKLDEISKKFGA	EREKALNDALKL	IEKDFGKGSIMRLGER	.AEQKVQV	MSSGSLALDIALGSGGY	PKGRII	75
NTDB id 453 Spy49 1753c ACI62003.1	.MAKK...LKKNEEITKKFGD	ERRKALDDALKN	IEKDFGKGAVMRLGER	.AEQKVQV	MSSGSLALDIALGA	GGYPKGRII	75
NTDB id 408 SMU RS09530 WP 002262392.1	.MAKR...IKKTEEITKKFGD	ERKKALDDALKN	IEKDFGKGAVMRLGER	.AEQKVQV	MSSGSLALDIALGAGGY	PKGRIV	75
NTDB id 115 BSU 16940 NP 389576.2	MS	DRQAALDMALKQ	IEKQFGKGSIMKLGEK	.TDTRI	ISTVPSGSLALDTALGI	GGYPRGRII	60
NTDB id 625 LCA RS02525 WP 011374196.1	MAKD	ERQAALDAALKK	IEKNFGKGSIMRMGEK	.VDTQV	VSTVSSGSLALDEALGV	GGYPRGRIV	62
NTDB id 234658 CDL62 RS12555 WP 079556648.1	.MSE.....QKESKVNQ	EKLKALQLTMDKIDKS	YKKGAIMRMGDTVV	.ENVPV	IPSGSIALDLALGV	GGYPRGRVV	69
NTDB id 1334 RAO RS04870 WP 004918236.1	.MAK.....TETTPND	DKKKALAAVLEKLDKTY	KGKTVMKLGDGTVDHN	IEV	IPSGSLGLDLALGV	GGYPRGRIV	70
NTDB id 1245 Cj1673c YP 002345041.1	MDDN	KRKSALDAALKSLDKT	FGKGTILRLGDK	.EVEQIDS	IGTGSVGLDLALGI	GGVPMGRII	61
NTDB id 1211 C694 RS00795 WP 000963128.1	MAIDE	DKQKAIISLAIKQIDKV	FGKGALVRLGDK	.QVEKIDS	ISTGSLGLDLALGI	GGVPMGRII	63
NTDB id 1214 NCTC11637 00359 SQJ03206.1	MAIDE	DKQKAIISLAIKQIDKV	FGKGALVRLGDK	.QVEKIDA	ISTGSLGLDLALGI	GGVPMGRII	63
NTDB id 1389 A4U84 RS07560 WP 021112712.1	.MAENKKSSKNNTVVKKVEPEQ	KKQALEAALAQIEKQFGKGSIMKLGQT	.EQLDIES	VSTGSLGLDLALGI	GGLPMGRIV	78	
NTDB id 1130 NGFG RS03960 WP 003688695.1	MSD	DKSKALAAALAQIEKSFGKGAIMKMDGSQ	QREENLEV	ISTGSLGLDLALGV	GGLPRGRIV	62	
NTDB id 1124 NGFG RS03960 WP 003688695.1	MSD	DKSKALAAALAQIEKSFGKGAIMKMDGSQ	QREENLEV	ISTGSLGLDLALGV	GGLPRGRIV	62	
NTDB id 1123 OK783 RS03845 WP 003688695.1	MSD	DKSKALAAALAQIEKSFGKGAIMKMDGSQ	QREENLEV	ISTGSLGLDLALGV	GGLPRGRIV	62	
NTDB id 1427 RS RS02760 WP 011000510.1	.MEDG.....KKAASMSA	EKKALAAALAQIEKQFGKGSIMKMGDA	.EVEPVQV	VSTGSLGLDVALGV	GGLPRGRVV	70	
NTDB id 1165 A1552VC RS01565 WP 000344154.1	MDEN	KQKALAAALGQIEKQFGKGSIMRLGDN	.RAMDVET	ISTGSLSLDIALGA	GGLPMGRIV	61	
NTDB id 1142 GTF74 RS11550 WP 000344154.1	MDEN	KQKALAAALGQIEKQFGKGSIMRLGDN	.RAMDVET	ISTGSLSLDIALGA	GGLPMGRIV	61	
NTDB id 1022 ACIAD RS06390 WP 004925639.1	MDDN	KSKALQAALSQIEKQFGKNTVMRLGDN	.TVQAVEA	VSTGSLTLDIALGI	GGLPKGRIV	61	
NTDB id 1074 ABD1 RS10195 WP 000344167.1	MDEN	KSKALQAALSQIEKQFGKNTVMRLGDN	.TVQAVEA	VSTGSLTLDIALGI	GGLPKGRIV	61	
NTDB id 1205 PSJM300 05545 AFN77183.1	MDEN	KKRALAAALGQIEKQFGKGAVMRMGDH	.DRQAIPS	ISTGSLGLDIALGI	GGLPKGRIV	61	
consensus	*** **	*** **	*** **	*** **	*** **	*** **	

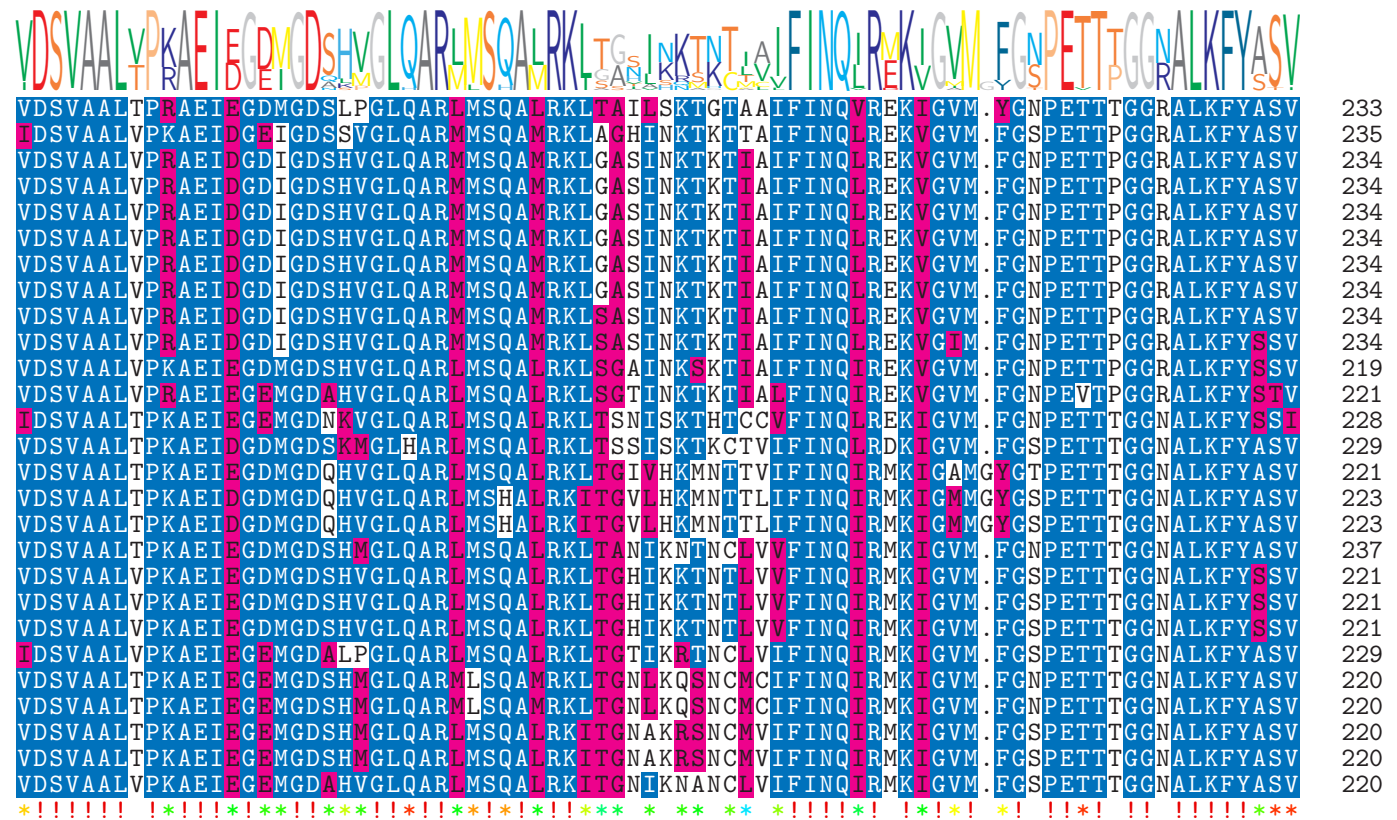
logo

NTDB id 1313 DR RS12030 WP 010888966.1	EIYGPESSGKTT	154
NTDB id 600 KW2 RS01765 WP 011675413.1	EIYGPESSGKTT	156
NTDB id 269 KZH43 RS08665 WP 001085462.1	EIYGPESSGKTT	155
NTDB id 228 SPD RS09265 WP 001085462.1	EIYGPESSGKTT	155
NTDB id 194 SPR RS08825 WP 001085462.1	EIYGPESSGKTT	155
NTDB id 159 SP RS09750 WP 001085462.1	EIYGPESSGKTT	155
NTDB id 499 SM12261 RS08315 WP 078228268.1	EIYGPESSGKTT	155
NTDB id 527 SMSK321 RS11065 WP 001085454.1	EIYGPESSGKTT	155
NTDB id 453 Spy49 1753c ACI62003.1	EIYGPESSGKTT	155
NTDB id 408 SMU RS09530 WP 002262392.1	EIYGPESSGKTT	155
NTDB id 115 BSU 16940 NP 389576.2	EIYGPESSGKTT	140
NTDB id 625 LCA RS02525 WP 011374196.1	EIYGPESSGKTT	142
NTDB id 234658 CDL62 RS12555 WP 079556648.1	EIYGPESSGKTT	149
NTDB id 1334 RAO RS04870 WP 004918236.1	EIYGPESSGKTT	150
NTDB id 1245 Cj1673c YP 002345041.1	EIYGPESSGKTT	141
NTDB id 1211 C694 RS00795 WP 000963128.1	EIYGPESSGKTT	143
NTDB id 1214 NCTC11637 00359 SQJ03206.1	EIYGPESSGKTT	143
NTDB id 1389 A4U84 RS07560 WP 021112712.1	EIYGPESSGKTT	158
NTDB id 1130 NGFG RS03960 WP 003688695.1	EIYGPESSGKTT	142
NTDB id 1124 NGFG RS03960 WP 003688695.1	EIYGPESSGKTT	142
NTDB id 1123 OK783 RS03845 WP 003688695.1	EIYGPESSGKTT	142
NTDB id 1427 RS RS02760 WP 011000510.1	EIYGPESSGKTT	150
NTDB id 1165 A1552VC RS01565 WP 000344154.1	EIYGPESSGKTT	141
NTDB id 1142 GTF74 RS11550 WP 000344154.1	EIYGPESSGKTT	141
NTDB id 1022 ACIAD RS06390 WP 004925639.1	EIYGPESSGKTT	141
NTDB id 1074 ABD1 RS10195 WP 000344167.1	EIYGPESSGKTT	141
NTDB id 1205 PSJM300 05545 AFN77183.1	EIYGPESSGKTT	141
consensus		

```

NTDB id 1313 DR RS12030 WP 010888966.1
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 453 Spy49 1753c ACI62003.1
NTDB id 408 SMU RS09530 WP 002262392.1
NTDB id 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 234658 CDL62 RS12555 WP 079556648.1
NTDB id 1334 RAOC RS04870 WP 004918236.1
NTDB id 1245 Cj1673c YP 002345041.1
NTDB id 1211 C694 RS00795 WP 000963128.1
NTDB id 1214 NCTC11637 00359 SQJ03206.1
NTDB id 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

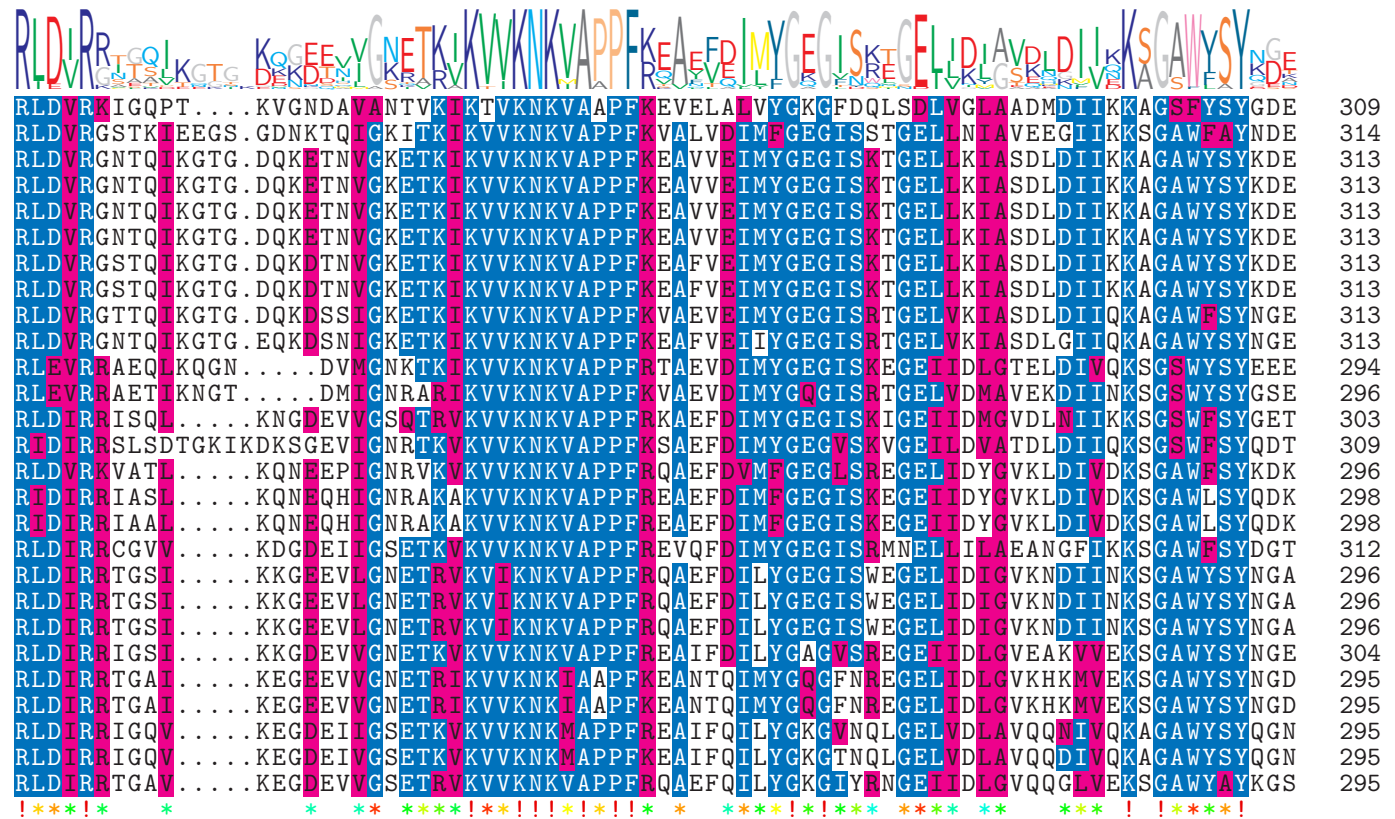
```



```

NTDB id 1313 DR RS12030 WP 010888966.1
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 453 Spy49 1753c ACI62003.1
NTDB id 408 SMU RS09530 WP 002262392.1
NTDB id 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 234658 CDL62 RS12555 WP 079556648.1
NTDB id 1334 RAOC RS04870 WP 004918236.1
NTDB id 1245 Cj1673c YP 002345041.1
NTDB id 1211 C694 RS00795 WP 000963128.1
NTDB id 1214 NCTC11637 00359 SQJ03206.1
NTDB id 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 1313 DR RS12030 WP 010888966.1	RIGQGKEKTIAYIAERP	363
NTDB id 600 KW2 RS01765 WP 011675413.1	KIGQGAEKAKNYLKEHQDV	387
NTDB id 269 KZH43 RS08665 WP 001085462.1	KIGQGS	387
NTDB id 228 SPD RS09265 WP 001085462.1	KIGQGS	387
NTDB id 194 SPR RS08825 WP 001085462.1	KIGQGS	387
NTDB id 159 SP RS09750 WP 001085462.1	KIGQGS	387
NTDB id 499 SM12261 RS08315 WP 078228268.1	KIGQGS	383
NTDB id 527 SMSK321 RS11065 WP 001085454.1	KIGQGS	383
NTDB id 453 Spy49 1753c ACI62003.1	KIGQGS	378
NTDB id 408 SMU RS09530 WP 002262392.1	KIGQGS	383
NTDB id 115 BSU 16940 NP 389576.2	RLGQGR	348
NTDB id 625 LCA RS02525 WP 011374196.1	RIGQGR	355
NTDB id 234658 CDL62 RS12555 WP 079556648.1	KLGGQ	339
NTDB id 1334 RAO RS04870 WP 004918236.1	KLGGQ	343
NTDB id 1245 Cj1673c YP 002345041.1	KLGGQ	343
NTDB id 1211 C694 RS00795 WP 000963128.1	KLGGQ	347
NTDB id 1214 NCTC11637 00359 SQJ03206.1	KLGGQ	347
NTDB id 1389 A4U84 RS07560 WP 021112712.1	KIGQG	372
NTDB id 1130 NGFG RS03960 WP 003688695.1	KIGQG	348
NTDB id 1124 NGFG RS03960 WP 003688695.1	KIGQG	348
NTDB id 1123 OK783 RS03845 WP 003688695.1	KIGQG	348
NTDB id 1427 RS RS02760 WP 011000510.1	RIGQGR	352
NTDB id 1165 A1552VC RS01565 WP 000344154.1	KIGQG	354
NTDB id 1142 GTF74 RS11550 WP 000344154.1	KIGQG	354
NTDB id 1022 ACIAD RS06390 WP 004925639.1	KIGQG	349
NTDB id 1074 ABD1 RS10195 WP 000344167.1	KIGQG	349
NTDB id 1205 PSJM300 05545 AFN77183.1	KIGQG	347
consensus	***!!!***** ** ***** ***** ** *	*

logo

NTDB id 1313 DR RS12030 WP 010888966.1	.	363
NTDB id 600 KW2 RS01765 WP 011675413.1	.	387
NTDB id 269 KZH43 RS08665 WP 001085462.1	E	388
NTDB id 228 SPD RS09265 WP 001085462.1	E	388
NTDB id 194 SPR RS08825 WP 001085462.1	E	388
NTDB id 159 SP RS09750 WP 001085462.1	E	388
NTDB id 499 SM12261 RS08315 WP 078228268.1	E	384
NTDB id 527 SMSK321 RS11065 WP 001085454.1	E	384
NTDB id 453 Spy49 1753c ACI62003.1	.	378
NTDB id 408 SMU RS09530 WP 002262392.1	.	383
NTDB id 115 BSU 16940 NP 389576.2	.	348
NTDB id 625 LCA RS02525 WP 011374196.1	.	355
NTDB id 234658 CDL62 RS12555 WP 079556648.1	.	339
NTDB id 1334 RAOC RS04870 WP 004918236.1	.	343
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 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