

logo

NTDB id 600 KW2 RS01765 WP 011675413.1	MATKK...KTNFDDITKKYGA	ERDKALADALALIEKD	FGKGSIMRLGEA	.ANQKVS	VSSGSLALD	I	ALGAGGY	PKGRIV	76
NTDB id 269 KZH43 RS08665 WP 001085462.1	.MAKK...PKKLEEISKKFGA	EREKALNDALKLIEKD	FGKGSIMRLGER	.AEQKVQVM	SSGSLALD	I	ALGSGGY	PKGRII	75
NTDB id 228 SPD RS09265 WP 001085462.1	.MAKK...PKKLEEISKKFGA	EREKALNDALKLIEKD	FGKGSIMRLGER	.AEQKVQVM	SSGSLALD	I	ALGSGGY	PKGRII	75
NTDB id 194 SPR RS08825 WP 001085462.1	.MAKK...PKKLEEISKKFGA	EREKALNDALKLIEKD	FGKGSIMRLGER	.AEQKVQVM	SSGSLALD	I	ALGSGGY	PKGRII	75
NTDB id 159 SP RS09750 WP 001085462.1	.MAKK...PKKLEEISKKFGA	EREKALNDALKLIEKD	FGKGSIMRLGER	.AEQKVQVM	SSGSLALD	I	ALGSGGY	PKGRII	75
NTDB id 499 SM12261 RS08315 WP 078228268.1	.MAKK...PKKLDEISKKFGA	EREKALNDALKLIEKD	FGKGSIMRLGER	.AEQKVQVM	SSGSLALD	I	ALGSGGY	PKGRII	75
NTDB id 527 SMSK321 RS11065 WP 001085454.1	.MAKK...PKKLDEISKKFGA	EREKALNDALKLIEKD	FGKGSIMRLGER	.AEQKVQVM	SSGSLALD	I	ALGSGGY	PKGRII	75
NTDB id 453 Spy49 1753c ACI62003.1	.MAKK...LKKNEEITKKFGD	ERRKALDDALKNIEKD	FGKGAVMRLGER	.AEQKVQVM	SSGSLALD	I	ALGAGGY	PKGRII	75
NTDB id 408 SMU RS09530 WP 002262392.1	.MAKR...IKKTEEITKKFGD	ERRKALDDALKNIEKD	FGKGAVMRLGER	.AEQKVQVM	SSGSLALD	I	ALGAGGY	PKGRIV	75
NTDB id 115 BSU 16940 NP 389576.2	MS	DRQAALDMALKQIEKQ	FGKGSIMKLGEK	.TDTR	ISTVPSGSLALD	T	ALGIGGY	PRGRII	60
NTDB id 625 LCA RS02525 WP 011374196.1	MAKD	ERQAALDAALKKIEKN	FGKGSIMRMGEK	.VDTQVST	VSSGSLALDE	A	LGVG	GYPRGRIV	62
NTDB id 1313 DR RS12030 WP 010888966.1	MSKDATKEISAPTD	AKERSKATETAM	SQIEKAFGKGSIMKLGAE	.SKLDVQV	VSTGSLSLDL	A	LGVG	GIPRGRIT	74
NTDB id 1245 Cj1673c YP 002345041.1	MDDN	KRKSALDAALKSLDKT	FGKGTILRLGDK	.EVEQ	IDSIGTGSVGLDL	A	LGIG	GVPPKGRII	61
NTDB id 1214 NCTC11637 00359 SQJ03206.1	MAIDED	DKQKALISLAIKQIDKV	FGKGALVRLGDK	.QVEKIDA	ISTGSLGLDL	A	LGIG	GVPPKGRII	63
NTDB id 1211 C694 RS00795 WP 000963128.1	MAIDED	DKQKALISLAIKQIDKV	FGKGALVRLGDK	.QVEKIDS	ISTGSLGLDL	A	LGIG	GVPPKGRII	63
NTDB id 1334 RAOC RS04870 WP 004918236.1	MAKTETTSPND	DKKKALAAVLEKLDKT	YGKGTVMKLG	GTVDHNI	EVIPSGSLGLDL	A	LGVG	GYPPKGRII	70
NTDB id 152154 SGRAN RS14770 WP 067184871.1	.MAGQLS...LVESGKSVNGP	DRQKALDAALAAQIDRA	FGKGSVMKLGSK	.EAMQVEA	ISTGSLGLD	I	ALGV	GGLPRGRVI	75
NTDB id 1389 A4U84 RS07560 WP 021112712.1	.MAENKKSSKNNTVVVKQVEPEQ	KKQALEAALAAQIEKQ	FGKGSIMKLGQT	.EQLD	IESVSTGSLGLDL	A	LGIG	GLPMGRIV	78
NTDB id 1130 NGFG RS03960 WP 003688695.1	MSD	DKSKALAAALAAQIEKS	FGKGAIMKMDGSQ	QEENLEVI	ISTGSLGLDL	A	LGVG	GLPRGRIV	62
NTDB id 1124 NGFG RS03960 WP 003688695.1	MSD	DKSKALAAALAAQIEKS	FGKGAIMKMDGSQ	QEENLEVI	ISTGSLGLDL	A	LGVG	GLPRGRIV	62
NTDB id 1123 OK783 RS03845 WP 003688695.1	MSD	DKSKALAAALAAQIEKS	FGKGAIMKMDGSQ	QEENLEVI	ISTGSLGLDL	A	LGVG	GLPRGRIV	62
NTDB id 1427 RS RS02760 WP 011000510.1	.MEDG.....KKAASMSA	EKQKALAAALAAQIEKQ	FGKGSIMKMGDA	.EVEPVQV	VSTGSLGLD	V	ALGV	GGLPRGRVV	70
NTDB id 1165 A1552VC RS01565 WP 000344154.1	MDEN	KQKALAAALGQIEKQ	FGKGSIMRLGDN	.RAMDVET	ISTGSLSLD	I	ALGAG	GLPMGRIV	61
NTDB id 1142 GTF74 RS11550 WP 000344154.1	MDEN	KQKALAAALGQIEKQ	FGKGSIMRLGDN	.RAMDVET	ISTGSLSLD	I	ALGAG	GLPMGRIV	61
NTDB id 1205 PSJM300 05545 AFN77183.1	MDEN	KKRALAAALGQIEKQ	FGKGAVMRMGDH	.DRQAIPS	ISTGSLGLD	I	ALGI	GGLPKGRIV	61
NTDB id 1022 ACIAD RS06390 WP 004925639.1	MDDN	KSKALQAALSQIEKQ	FGKNTVMRLGDN	.TVQAVEA	VSTGSLTLD	I	ALGI	GGLPKGRIV	61
NTDB id 1074 ABD1 RS10195 WP 000344167.1	MDEN	KSKALQAALSQIEKQ	FGKNTVMRLGDN	.TVQAVEA	VSTGSLTLD	I	ALGI	GGLPKGRII	61
consensus		*** **	***	***	***	***	***	***	

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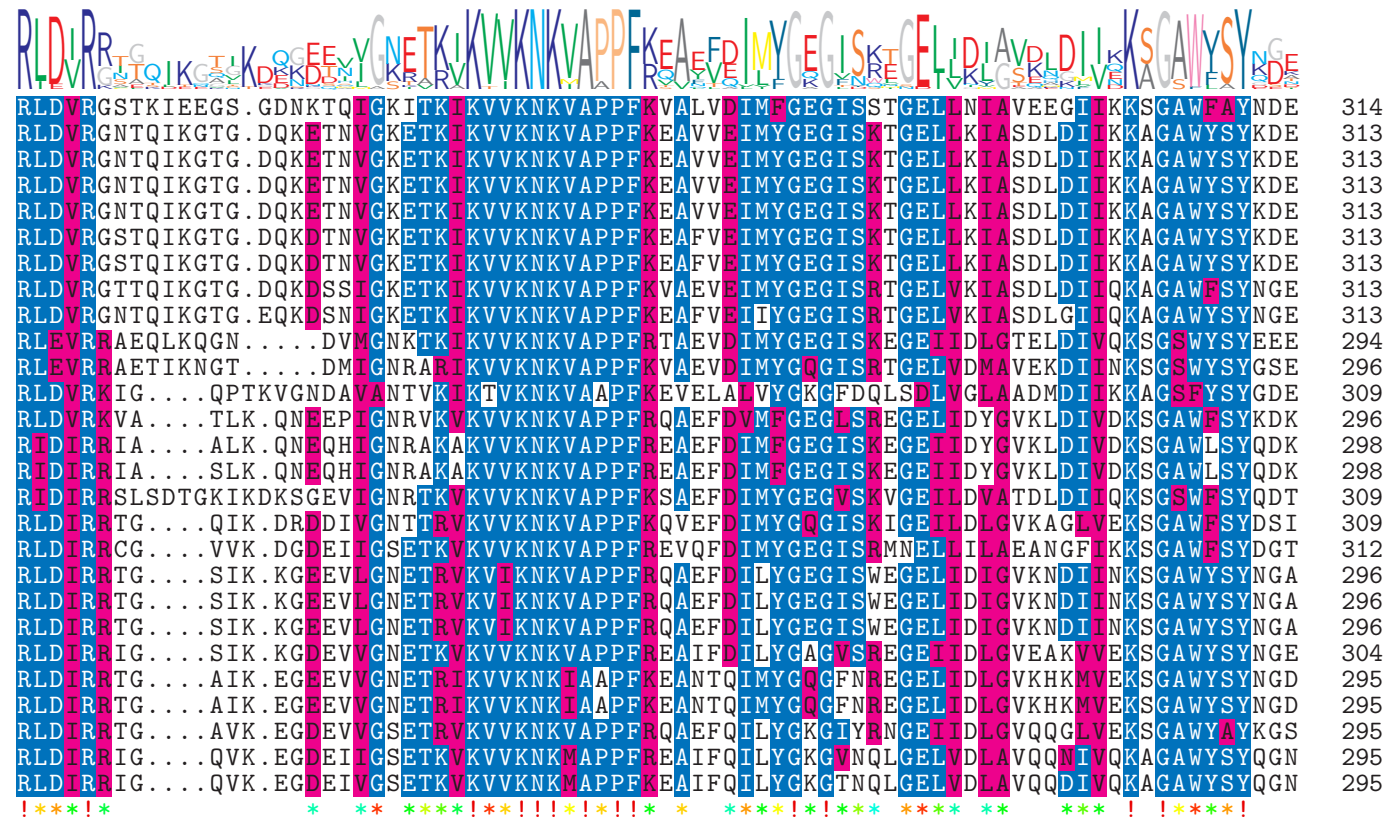
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NTDB id 269 KZH43 RS08665 WP 001085462.1	EIYGPESSGKTTVALHAVA	QAQKEGGIAAFIDAENALDPAAYAAALGVN	IDELL	LSQPDYGEQGLEIAGKLIDSGAVDLVV	155		
NTDB id 228 SPD RS09265 WP 001085462.1	EIYGPESSGKTTVALHAVA	QAQKEGGIAAFIDAENALDPAAYAAALGVN	IDELL	LSQPDYGEQGLEIAGKLIDSGAVDLVV	155		
NTDB id 194 SPR RS08825 WP 001085462.1	EIYGPESSGKTTVALHAVA	QAQKEGGIAAFIDAENALDPAAYAAALGVN	IDELL	LSQPDYGEQGLEIAGKLIDSGAVDLVV	155		
NTDB id 159 SP RS09750 WP 001085462.1	EIYGPESSGKTTVALHAVA	QAQKEGGIAAFIDAENALDPAAYAAALGVN	IDELL	LSQPDYGEQGLEIAGKLIDSGAVDLVV	155		
NTDB id 499 SM12261 RS08315 WP 078228268.1	EIYGPESSGKTTVALHAVA	QAQKEGGIAAFIDAENALDPAAYAAALGVN	IDELL	LSQPDYGEQGLEIAGKLIDSGAVDLVV	155		
NTDB id 527 SMSK321 RS11065 WP 001085454.1	EIYGPESSGKTTVALHAVA	QAQKEGGIAAFIDAENALDPAAYAAALGVN	IDELL	LSQPDYGEQGLEIAGKLIDSGAVDLVV	155		
NTDB id 453 Spy49 1753c ACI62003.1	EIYGPESSGKTTVALHAVA	QAQKEGGIAAFIDAENALDPAAYAAALGVN	IDELL	LAQPDYGEQGLEIAGKLIDSGAVDLVV	155		
NTDB id 408 SMU RS09530 WP 002262392.1	EIYGPESSGKTTVALHAVA	QAQKDGGIAAFIDAENALDPAAYAAALGVN	IDELL	LSQPDYGEQGLEIAGKLIDSGAVDLVV	155		
NTDB id 115 BSU 16940 NP 389576.2	EVIYGPESSGKTTVALHAI	AEVQQQGGQAAAFIDAENALDPVYAQKLGVN	IEELL	LSQPDYGEQGLEIAEALVRSGAVDIVV	140		
NTDB id 625 LCA RS02525 WP 011374196.1	EIYGPESSGKTTVALHAVA	AEVQKQGGTAA	YIDAENAMDPKYATALGVN	IDDLL	LSQPDYGEQGLEIADALVSSGAVDIVV	142	
NTDB id 1313 DR RS12030 WP 010888966.1	EIYGPESSGKTTVALAI	VAQAQKAGGTCAAFIDAENALDPVYARALGVN	IDELL	VSQPDYGEQGLEIIMELLVRSGAIDVVV	154		
NTDB id 1245 Cj1673c YP 002345041.1	EIYGPESSGKTTTL	HLHIAECQKAGGVC	AFIDAENALDPVYAKNLGVN	IDLL	VSQPDYGEQGLEIIVETIARSGAVDIVV	141	
NTDB id 1214 NCTC11637 00359 SQJ03206.1	EIYGPESSGKTTTL	SLHIAECQKNGGVC	AFIDAENALDPVHYAKRLGVD	IDENLL	VSQPDYGEQGLEIILETITRSGGIDLVV	143	
NTDB id 1211 C694 RS00795 WP 000963128.1	EIYGPESSGKTTTL	SLHIAECQKNGGVC	AFIDAENALDPVHYAKRLGVD	IDENLL	VSQPDYGEQGLEIILETITRSGGIDLVV	143	
NTDB id 1334 RAOC RS04870 WP 004918236.1	EIYGPESSGKTTTL	HLHIAEAQKVGGTAA	AFIDAENALFDMHYAEKLGINLEEL	IVSQPDYGEQGLEIADSLIRSGGVDIVV	150		
NTDB id 152154 SGRAN RS14770 WP 067184871.1	EIYGPESSGKTTTL	ALHCAEAQKMGGTAA	AFVDAENALDPVYAKKLGVD	IDELIV	SQPDYGEQGLEIIVDTLVR	SNADIVLV	155
NTDB id 1389 A4U84 RS07560 WP 021112712.1	EIYGPESSGKTTTL	LSLIAQAQKGNKTC	AFIDAENALDPVYARNLGVN	IDELL	ISQPDYGEQGLEICDALVRSGAVDIVV	158	
NTDB id 1130 NGFG RS03960 WP 003688695.1	EIIFGP	ESSGKTTLCLEAVAQCQKNGGVC	AFVDAENALFDPVYARKLGVKVEELY	LSQPDYGEQGLEICDTLVRSGGIDMVV	142		
NTDB id 1124 NGFG RS03960 WP 003688695.1	EIIFGP	ESSGKTTLCLEAVAQCQKNGGVC	AFVDAENALFDPVYARKLGVKVEELY	LSQPDYGEQGLEICDTLVRSGGIDMVV	142		
NTDB id 1123 OK783 RS03845 WP 003688695.1	EIIFGP	ESSGKTTLCLEAVAQCQKNGGVC	AFVDAENALFDPVYARKLGVKVEELY	LSQPDYGEQGLEICDTLVRSGGIDMVV	142		
NTDB id 1427 RS RS02760 WP 011000510.1	EIYGPESSGKTTTL	LQVVAEMQKLGGTCA	AFIDAENALDVTYADKLGVKVP	DLLISQPDYGEQGLEIADALVRSGSVDLIV	150		
NTDB id 1165 A1552VC RS01565 WP 000344154.1	EIIFGP	ESSGKTTTLLELIAAAQREGKTC	AFIDAENALDPVYAKKLGVN	IDELL	VSQPDYGEQGLEICDALARSGAVDIVV	141	
NTDB id 1142 GTF74 RS11550 WP 000344154.1	EIIFGP	ESSGKTTTLLELIAAAQREGKTC	AFIDAENALDPVYAKKLGVN	IDELL	VSQPDYGEQGLEICDALARSGAVDIVV	141	
NTDB id 1205 PSJM300 05545 AFN77183.1	EIYGPESSGKTTTL	LSVIAAAQRMGSTCA	AFVDAENALDPDYAGKLGVNVD	LLVSQPDYGEQGLEIITDMLVR	SNADIVV	141	
NTDB id 1022 ACIAD RS06390 WP 004925639.1	EIYGPESSGKTTMTL	LQIAQAQKAGGTCA	AFIDAENALDPQYARKLGVD	IDNLLVSQPDHGEQGLEIADMLVR	SGAIDLV	141	
NTDB id 1074 ABD1 RS10195 WP 000344167.1	EIYGPESSGKTTMTL	LQIAQAQKSGGTCA	AFIDAENALDPQYARKLGVD	IDNLLVSQPDHGEQGLEIADMLVR	SGAIDLV	141	
consensus	!*****!	*****!	*****!	*****!	*****!	*****!	*****!

[illegible]

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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 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 152154 SGRAN RS14770 WP 067184871.1
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 1205 PSJM300 05545 AFN77183.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1074 ABD1 RS10195 WP 000344167.1
consensus

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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
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NTDB id 1205 PSJM300 05545 AFN77183.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1074 ABD1 RS10195 WP 000344167.1
consensus

Sequence	Score
KIGQGAENAKNYLKEHQDVFEIDHKVRAAHGLDDSEVAETEE..ETTASKTAKAKKKEEKAVETEEIELELED....	387
KIGQGSSENAKKYLAEHPEIFDEIDKQVRSKFLIDGEEVSEQDT..ENKKDE...PKKEEA..VNEEVPLDLGDELEIE	385
KIGQGSSENAKKYLAEHPEIFDEIDKQVRSKFLIDGEEVSEQDT..ENKKDE...PKKEEA..VNEEVPLDLGDELEIE	385
KIGQGSSENAKKYLAEHPEIFDEIDKQVRSKFLIDGEEVSEQDT..ENKKDE...PKKEEA..VNEEVPLDLGDELEIE	385
KIGQGSSENAKKYLAADNPEIFDEIDHQVRVQFGLIDGEEIAES....KKDE...AAQVDS..VNEEVPLDLGDELEIE	381
KIGQGSSENAKKYLAADNPEVFAEIDHQVRVQFGLIDGEEAAES....KKDE...VAQVDS..VNEEVPLDLGDELEIE	381
KIGQGSSENAKRYLADHPQLFDEIDRKVRVKFGLLEESEESAMA..VASE.....E.....TDDLALDLNGIEIE	377
KIGQGSSENAKKFLADNPEIFDDIDHKVRVQYGLIEEDNTEEEKQS..SKEK.....ETDEK..ADKNLVLELDDTIELE	382
RLGQGRENAKQFLKENKDIMLMIQEQUIREHYGLDNGGVVQQQAE..ETQEEL.EFE.E.....	348
RIGQGRENAKNYLADHEDVEDEVRLKVRAAAYGISDVPPEEDLPTT..EDE.QI.NILPDDST....EE.....	355
RIGQGKEKTIAIYIAERPMEQEITRDRVMAAIRAGNAGEAPALAPAPAAPEAA.EA.....	363
KLGGRENSKAFLKENPEIADEITKAIQNSMGIEGMISG..SED..DEGEF.....	343
KLGGGRENAKALLKEDKALADEITLKIKESIGSNEEIMP..LPD..EPLEEM.E.....	347
KLGGGRENAKALLKEDKALADEITLKIKESIGSNEEIMP..LPD..EPLEEM.E.....	347
KLGGGRDRTVKELIKDNPELAELEAKIREKLQAK.....	343
RIGQGRENAKNFLSENPELMQRLSAIRGRTDASAEEEM..TGP..DDGEDD.DL.....	359
KIGQGGKNNAVKWLKENPEIADKEIIRNTLASNPNSVL..KATASDSNDES.DVEEF.....SEEL.....	372
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KIGQGGKDNVRVWLKENPEISDEIDAKIRALNGVEMHITE..GT.....QDE.TDGER.....PEE.....	348
RIGQGRDNCREFLRENAELAREIENKLVREHLGVTPMGAV..TLAEVEVED.....	352
KIGQGGKANACKYLKENPEIAKTLDDKKLREMLLNPNMQL..IAETSSAADV.EFGAV.....PEEF.....	354
KIGQGGKANACKYLKENPEIAKTLDDKKLREMLLNPNMQL..IAETSSAADV.EFGAV.....PEEF.....	354
KIGQGGKANAACKYLEENPEIGQEIEQQIRAKLLVTSANTK..ATPVAEDLADA.DI.....	347
KIGQGGKNNVIRYLEENPQISTEIEAVIREQLLTKASDQT..AA.HDETEEEP.DLL.....ES.....	349
KIGQGGKNNVIRYFENNQIAEIERNIIREQLLTGTNGA..VQ.I.EDEEEP.DLL.....LES.....	349

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NTDB id 600 KW2 RS01765 WP 011675413.1	...	387
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 453 Spy49 1753c ACI62003.1	D..	378
NTDB id 408 SMU RS09530 WP 002262392.1	D..	383
NTDB id 115 BSU 16940 NP 389576.2	...	348
NTDB id 625 LCA RS02525 WP 011374196.1	...	355
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NTDB id 1427 RS RS02760 WP 011000510.1	...	352
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NTDB id 1142 GTF74 RS11550 WP 000344154.1	...	354
NTDB id 1205 PSJM300 05545 AFN77183.1	...	347
NTDB id 1022 ACIAD RS06390 WP 004925639.1	...	349
NTDB id 1074 ABD1 RS10195 WP 000344167.1	...	349

consensus

 non conserved
 similar
 ≥ 50% conserved