

```
NTDB id 1177 A1552VC RS01165 WP 000422572.1
NTDB id 1203 PSJM300 01605 AFN76401.1
NTDB id 1019 ACIAD RS04205 WP 004922051.1
NTDB id 255778 OA04 RS18445 WP 107333415.1
NTDB id 1307 DR RS10055 WP 010888596.1
NTDB id 1086 NMV RS00245 WP 002218487.1
NTDB id 1116 NGFG RS10615 WP 003690200.1
NTDB id 1185 GTF74 RS11940 WP 000350195.1
NTDB id 1176 A1552VC RS01160 WP 000350195.1
NTDB id 1283 ACE17W RS02630 WP 010947729.1
NTDB id 1259 GC085 RS10305 WP 010947729.1
NTDB id 1202 PSJM300 01600 AFN76400.1
NTDB id 1194 PAKAF RS01995 WP 003084552.1
NTDB id 1020 ACIAD RS04210 WP 011182164.1
NTDB id 1081 FDQ49 RS05335 WP 006581387.1
NTDB id 1060 ABD1 RS04380 WP 000355489.1
NTDB id 1040 HQN27 RS13360 WP 000355489.1
```

MDITELLAFSVKNGASDLHLHSAGVPPMIRVDGEVRRINLPAL¹EHKDV²HR³LYD⁴IMND⁵KQR⁶REY⁷E⁸EKL⁹ED¹⁰FSFEY¹¹

MTSGIDITDITDLRLAADK¹²ASDIILAAGLPPQFKLSGDYDAQG¹³.FEP¹⁴LSASDTRK¹⁵LMYS¹⁶MMNER¹⁷QQR¹⁸IFEEK¹⁹RELD²⁰FSFAL²¹

...MEINQYLDGMLTHKASDLYITVGA²²PILYRVDGELRAQG²³.EAL²⁴.SVADV²⁵TAL²⁶LHAMMDARQA²⁷E²⁸FK²⁹Q³⁰TREAN³¹FAVVR³²

...MEFEKLLRLMVEKGGSDLFITAGVPPSMK³³VNGKILPV³⁴N.KTPMSPEMTRET³⁵VHGVMNEQQR³⁶REFTENHEC³⁷NF³⁸AI³⁹SA⁴⁰

...MDFNDLLNLMAKHKASDLFITAGVEPSLKINGEITPV⁴¹S.KTKLDGDMIAQLIDSITTTQ⁴²KQRQ⁴³E⁴⁴FIETHEC⁴⁵FAILN⁴⁶

...MELDEWMARSVKHNASDLHLCSGHPPVL⁴⁷RVDGRGLQ⁴⁸PENTLPRLTPDQVAQWCDAWLEPAQ⁴⁹REQLR⁵⁰QAGV⁵¹DGALM⁵²

MTSGIDITDITDLRLAADK⁵³ASDIILAAGLPPQFKLSGDYDAQG⁵⁴.FEP⁵⁵LSASDTRK⁵⁶LMYS⁵⁷MMNER⁵⁸QQR⁵⁹IFEEK⁶⁰RELD⁶¹FSFAL⁶²

...MQITDLLAFGA⁶³KNKASDLHLSSG⁶⁴ISPMIRVHGDMRRIN⁶⁵.LP⁶⁶EMSAEEVGNM⁶⁷VTSVMNDHQR⁶⁸KIY⁶⁹QQNLEVDFS⁷⁰FEL⁷¹

...MQITDLLAFGA⁷²KNKASDLHLSSG⁷³ISPMIRVHGDMRRIN⁷⁴.LP⁷⁵EMSAEEVGNM⁷⁶VTSVMNDHQR⁷⁷KIY⁷⁸QQNLEVDFS⁷⁹FEL⁸⁰

...MDIAELLEFSVKHNASDLHL⁸¹SAGVPPMVRIDGEVRKLG⁸².VP⁸³AFTHSDVHRLIFEIMNDAQR⁸⁴SEYEEKLEVDFS⁸⁵FEL⁸⁶

...MDIAELLEFSVKHNASDLHL⁸⁷SAGVPPMVRIDGEVRKLG⁸⁸.VP⁸⁹AFTHSDVHRLIFEIMNDAQR⁹⁰SEYEEKLEVDFS⁹¹FEL⁹²

...MDIAELLAFSVKN⁹³SSDLHISAGMPPMIRVDGDLRKIN⁹⁴.LP⁹⁵PLEHKDVIKI⁹⁶IYD⁹⁷IMNDRQRKEYEEFFETDFS⁹⁸FEL⁹⁹

...MDIAELLAFSVKN¹⁰⁰SSDLHISAGMPPMIRVDGDLRKIN¹⁰¹.LP¹⁰²PLEHKDVIKI¹⁰³IYD¹⁰⁴IMNDRQRKEYEEFFETDFS¹⁰⁵FEL¹⁰⁶

...MDITELLAFSAKQ¹⁰⁷GASDLHLSSGLPPMIRVDGDVRRIN¹⁰⁸.LP¹⁰⁹AMDHKQVHALIYD¹¹⁰IMNDKQRKDFEEFLETDFS¹¹¹SFEV¹¹²

...MDITELLAFSAKQ¹¹³GASDLHL¹¹⁴SAGLPPMIRVDGDVRRIN¹¹⁵.LP¹¹⁶PLEHKQVHALIYD¹¹⁷IMNDKQRKDFEEFLETDFS¹¹⁸SFEV¹¹⁹

...MDITELLAFSVQNRASDLHL¹²⁰SAGIPPMIRVDGEVRRIN¹²¹.LP¹²²AMDHSEVHNLIYD¹²³IMNDKQR¹²⁴RDYEEKLETDFS¹²⁵SFEV¹²⁶

...MDITELLAFSVKNGASDLHL¹²⁷SAGMPPMIRVDGEVRRIN¹²⁸.LP¹²⁹ALEHKDVHRLVYD¹³⁰IMNDKQR¹³¹RDYEEKLETDFS¹³²SFEV¹³³

...MDITELLAFSVKNGASDLHL¹³⁴SAGMPPMIRVDGEVRRIN¹³⁵.LP¹³⁶ALEHKDVHRLVYD¹³⁷IMNDKQR¹³⁸RDYEEKLETDFS¹³⁹SFEV¹⁴⁰

*** ** ** ** ** *| | ** ** | ** ** ** ** ** * * * * *

```

NTDB id 1177 A1552VC RS01165 WP 000422572.1
NTDB id 1203 PSJM300 01605 AFN76401.1
NTDB id 1019 ACIAD RS04205 WP 004922051.1
NTDB id 255778 OA04 RS18445 WP 107333415.1
NTDB id 1307 DR RS10055 WP 01088596.1
NTDB id 1086 NMV RS00245 WP 002218487.1
NTDB id 1116 NGFG RS10615 WP 003690200.1
NTDB id 1185 GTF74 RS11940 WP 000350195.1
NTDB id 1176 A1552VC RS01160 WP 000350195.1
NTDB id 1283 ACE17W RS02630 WP 010947729.1
NTDB id 1259 GC085 RS10305 WP 010947729.1
NTDB id 1202 PSJM300 01600 AFN76400.1
NTDB id 1194 PAKAF RS01995 WP 003084552.1
NTDB id 1020 ACIAD RS04210 WP 011182164.1
NTDB id 1081 FDQ49 RS05335 WP 006581387.1
NTDB id 1060 ABD1 RS04380 WP 000355489.1
NTDB id 1040 HQN27 RS13360 WP 000355489.1

```

[illegible]

```

NTDB id 1177 A1552VC RS01165 WP 000422572.1
NTDB id 1203 PSJM300 01605 AFN76401.1
NTDB id 1019 ACIAD RS04205 WP 004922051.1
NTDB id 255778 OA04 RS18445 WP 107333415.1
NTDB id 1307 DR RS10055 WP 010888596.1
NTDB id 1086 NMV RS00245 WP 002218487.1
NTDB id 1116 NGFG RS10615 WP 003690200.1
NTDB id 1185 GTF74 RS11940 WP 000350195.1
NTDB id 1176 A1552VC RS01160 WP 000350195.1
NTDB id 1283 ACE17W RS02630 WP 010947729.1
NTDB id 1259 GC085 RS10305 WP 010947729.1
NTDB id 1202 PSJM300 01600 AFN76400.1
NTDB id 1194 PAKAF RS01995 WP 003084552.1
NTDB id 1020 ACIAD RS04210 WP 011182164.1
NTDB id 1081 FDQ49 RS05335 WP 006581387.1
NTDB id 1060 ABD1 RS04380 WP 000355489.1
NTDB id 1040 HON27 RS13360 WP 000355489.1
consensus

```



```

NTDB id 1177 A1552VC RS01165 WP 000422572.1
NTDB id 1203 PSJM300 01605 AFN76401.1
NTDB id 1019 ACIAD RS04205 WP 004922051.1
NTDB id 255778 OA04 RS18445 WP 107333415.1
NTDB id 1307 DR RS10055 WP 01088596.1
NTDB id 1086 NMV RS00245 WP 002218487.1
NTDB id 1116 NGFG RS10615 WP 003690200.1
NTDB id 1185 GTF74 RS11940 WP 000350195.1
NTDB id 1176 A1552VC RS01160 WP 000350195.1
NTDB id 1283 ACE17W RS02630 WP 010947729.1
NTDB id 1259 GC085 RS10305 WP 010947729.1
NTDB id 1202 PSJM300 01600 AFN76400.1
NTDB id 1194 PAKAF RS01995 WP 003084552.1
NTDB id 1020 ACIAD RS04210 WP 011182164.1
NTDB id 1081 FDQ49 RS05335 WP 006581387.1
NTDB id 1060 ABD1 RS04380 WP 000355489.1
NTDB id 1040 HON27 RS13360 WP 000355489.1
consensus

```



logo

NTDB id 1177 A1552VC RS01165 WP 000422572.1	QTFDQALYQLVVDKISEQDALHSADSLRLMLKTKR.GDDY...GSGSLQNVKI.....DME.....	368
NTDB id 1203 PSJM300 01605 AFN76401.1	QTFDQALYNLYVQGEITYEDALLHADSSNDLRLMIKLGSE.TDGEHLTSVS.QGLTL.....EMSDDDPGRSFR...	381
NTDB id 1019 ACIAD RS04205 WP 004922051.1	QTFDQALFDLYDHQHISYADALKHADSPNNLRLQIKLSE.EANKPLDNRRERMSEMER.....KMTFDGQRRNLK...	383
NTDB id 255778 OA04 RS18445 WP 107333415.1	QTFEQSYQQRCRDGLISHSCDLAV.....	338
NTDB id 1307 DR RS10055 WP 010888596.1	VTMDAYLAGLFRHRLITYDKGLERAIDPKEFARLANDASAGLGG....ASMTPAAPPVPAYNSASSSSTGRGGDFGRGA	393
NTDB id 1086 NMV RS00245 WP 002218487.1	QTFDQSLQSLVRQGLIAPEVARRRAQNSSEMSF.....	347
NTDB id 1116 NGFG RS10615 WP 003690200.1	QTFDQSLQSLVRQGLIAPEAARRRAQNSSEMSF.....	347
NTDB id 1185 GTF74 RS11940 WP 000350195.1	QTFEQNAKQLIARGVVDQEVQSKIELDLKAF.....	345
NTDB id 1176 A1552VC RS01160 WP 000350195.1	QTFEQNAKQLIARGVVDQEVQSKIELDLKAF.....	345
NTDB id 1283 ACE17W RS02630 WP 010947729.1	QTFDQHLTELVNKNIISKHTAHEAALNK.SLF.....	344
NTDB id 1259 GC085 RS10305 WP 010947729.1	QTFDQHLTELVNKNIISKHTAHEAALNK.SLF.....	344
NTDB id 1202 PSJM300 01600 AFN76400.1	QTFDQSLKGLLAKGLISRDSEKEKAKQP.ENF.....	344
NTDB id 1194 PAKAF RS01995 WP 003084552.1	QTFDQSLKGLLAKGLISRENAREKAKIP.ENF.....	344
NTDB id 1020 ACIAD RS04210 WP 01182164.1	TTLDQSLKQLLAKGIINLPTARAVAKSP.ESF.....	344
NTDB id 1081 FDQ49 RS05335 WP 006581387.1	TTLDQSLKGLVSRGVISPQTARTAAKQP.ESFL.....	345
NTDB id 1060 ABD1 RS04380 WP 000355489.1	TTLDQSLKGLVARGVISPQTARTAAKQP.ESFL.....	345
NTDB id 1040 HON27 RS13360 WP 000355489.1	TTLDQSLKGLVARGVISPQTARTAAKQP.ESFL.....	345
consensus	*!*** * * * * *	

logo

NTDB id 1177 A1552VC RS01165 WP 000422572.1	..	368
NTDB id 1203 PSJM300 01605 AFN76401.1	..	381
NTDB id 1019 ACIAD RS04205 WP 004922051.1	..	383
NTDB id 255778 OA04 RS18445 WP 107333415.1	..	338
NTDB id 1307 DR RS10055 WP 010888596.1	AAPATPAAPAAGRSEPGRAGGFGRR	418
NTDB id 1086 NMV RS00245 WP 002218487.1	..	347
NTDB id 1116 NGFG RS10615 WP 003690200.1	..	347
NTDB id 1185 GTF74 RS11940 WP 000350195.1	..	345
NTDB id 1176 A1552VC RS01160 WP 000350195.1	..	345
NTDB id 1283 ACE17W RS02630 WP 010947729.1	..	344
NTDB id 1259 GC085 RS10305 WP 010947729.1	..	344
NTDB id 1202 PSJM300 01600 AFN76400.1	..	344
NTDB id 1194 PAKAF RS01995 WP 003084552.1	..	344
NTDB id 1020 ACIAD RS04210 WP 01182164.1	..	344
NTDB id 1081 FDQ49 RS05335 WP 006581387.1	..	345
NTDB id 1060 ABD1 RS04380 WP 000355489.1	..	345
NTDB id 1040 HON27 RS13360 WP 000355489.1	..	345
consensus		

- [X] non conserved
- [X] similar
- [X] ≥ 50% conserved