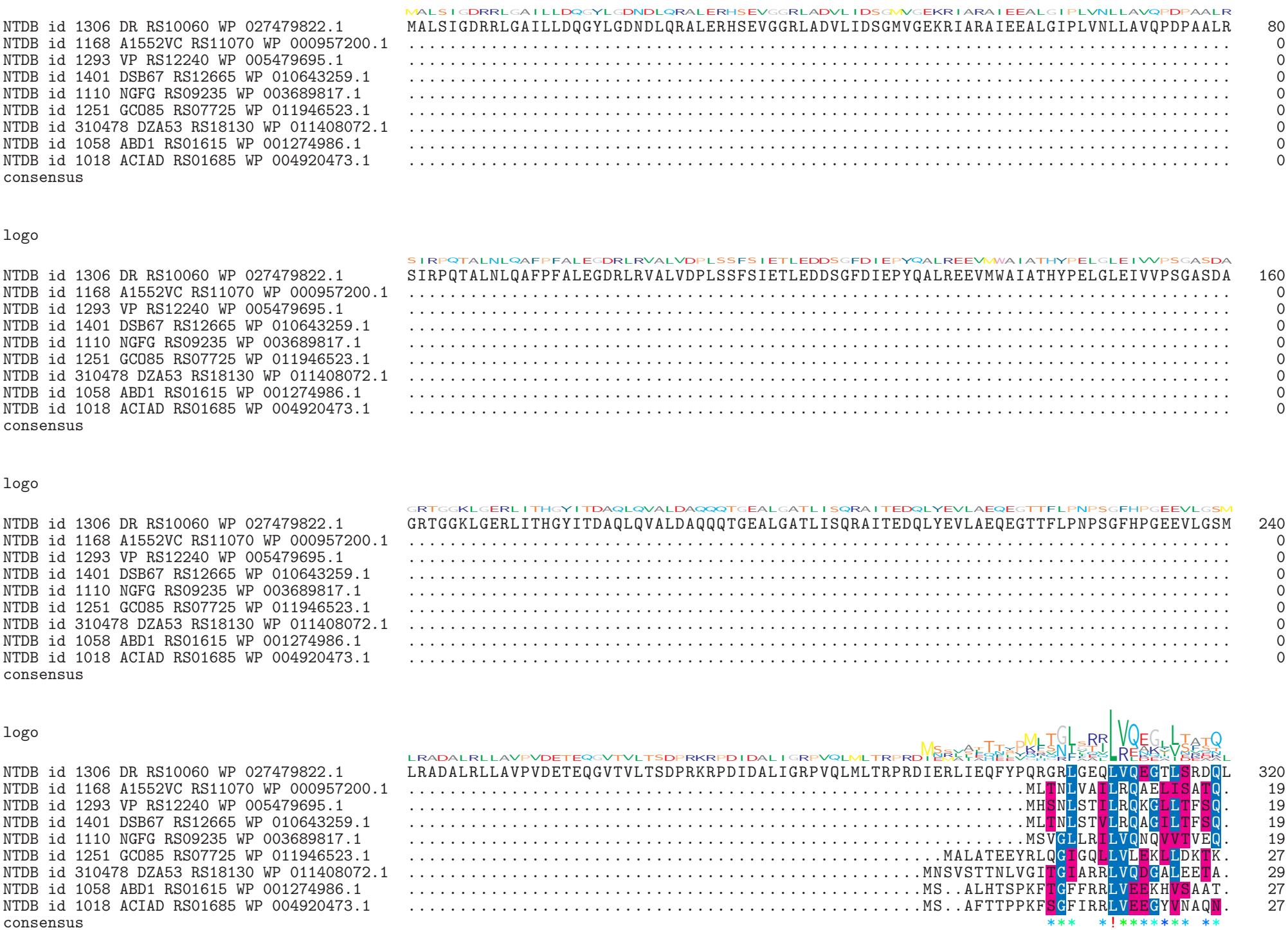

logo
NTDB id 1306 DR RS10060 WP 027479822.1 MALSIGDRRLGAILLDQGYLGDNDLQRALERHSEVGGRLADVLIDSGMVGEKRIARAIEEALGIPLVNLLAVQPDPAALR 80
NTDB id 1168 A1552VC RS11070 WP 000957200.1 0
NTDB id 1293 VP RS12240 WP 005479695.1 0
NTDB id 1401 DSB67 RS12665 WP 010643259.1 0
NTDB id 1110 NGFG RS09235 WP 003689817.1 0
NTDB id 1251 GCO85 RS07725 WP 011946523.1 0
NTDB id 310478 DZA53 RS18130 WP 011408072.1 0
NTDB id 1058 ABD1 RS01615 WP 001274986.1 0
NTDB id 1018 ACIAD RS01685 WP 004920473.1 0
consensus
logo
NTDB id 1306 DR RS10060 WP 027479822.1 SIRPQTALNLQAFPFALEGDRLRVALVDPLSSFSIETLEDDSGFDIEPYQALREEVMWAIATHYPELGLEIVVPSGASDA 160
NTDB id 1168 A1552VC RS11070 WP 000957200.1 0
NTDB id 1293 VP RS12240 WP 005479695.1 0
NTDB id 1401 DSB67 RS12665 WP 010643259.1 0
NTDB id 1110 NGFG RS09235 WP 003689817.1 0
NTDB id 1251 GCO85 RS07725 WP 011946523.1 0
NTDB id 310478 DZA53 RS18130 WP 011408072.1 0
NTDB id 1058 ABD1 RS01615 WP 001274986.1 0
NTDB id 1018 ACIAD RS01685 WP 004920473.1 0
consensus
logo
NTDB id 1306 DR RS10060 WP 027479822.1 GRTGGKLGERLITHGYITDAQLQVALDAQQQTGEALGATLISQRAITEDQLYEVLAEQEGTTFLPNPSGFHPGEEVLGSM 240
NTDB id 1168 A1552VC RS11070 WP 000957200.1 0
NTDB id 1293 VP RS12240 WP 005479695.1 0
NTDB id 1401 DSB67 RS12665 WP 010643259.1 0
NTDB id 1110 NGFG RS09235 WP 003689817.1 0
NTDB id 1251 GCO85 RS07725 WP 011946523.1 0
NTDB id 310478 DZA53 RS18130 WP 011408072.1 0
NTDB id 1058 ABD1 RS01615 WP 001274986.1 0
NTDB id 1018 ACIAD RS01685 WP 004920473.1 0
consensus
logo
NTDB id 1306 DR RS10060 WP 027479822.1 LRADALRLLAVPVDETEQGVTVLTSDPRKRPDIDALIGRPVQLMLTRPRDIERLIEQFYPQRGRLGEQLVQEGTLSRDQL 320
NTDB id 1168 A1552VC RS11070 WP 000957200.1 .....MLTNLVAILRQAELISATQ. 19
NTDB id 1293 VP RS12240 WP 005479695.1 .....MHSNLSTILRQKGLLTFSQ. 19
NTDB id 1401 DSB67 RS12665 WP 010643259.1 .....MLTNLSTVLRQAGILTFSQ. 19
NTDB id 1110 NGFG RS09235 WP 003689817.1 .....MSVGLLRILVQNQVVTVEQ. 19
NTDB id 1251 GCO85 RS07725 WP 011946523.1 .....MALATEEYRLQGIGQLLVLEKLLDKTK. 27
NTDB id 310478 DZA53 RS18130 WP 011408072.1 .....MNSVSTTNLVGITGIARRLVQDGALEETA. 29
NTDB id 1058 ABD1 RS01615 WP 001274986.1 .....MS..ALHTSPKFTGFFRRLVEEKHVSAAT. 27
NTDB id 1018 ACIAD RS01685 WP 004920473.1 .....MS..AFTTPPKFSGFIRRLVEEGYVNAQN. 27
consensus

logo

```
NTDB id 1306 DR RS10060 WP 027479822.1        REALQVQARE GKVKPLGEVI TELGFASPDE VDSALQKQNV GGGRLEDTLV QSGKLSPEML ARSLAAQLGY EFLDPIQNPP  400
NTDB id 1168 A1552VC RS11070 WP 000957200.1   ..........  ..........  ..........  ..EQAVTQVS ASGTSVPEAL LELSIFHAQE LTEQLSHIFG LPETDLSRYD Y   69
NTDB id 1293 VP RS12240 WP 005479695.1        ..........  ..........  ..........  ..EESLIEQV KASGISMPEA LLSSGFFTSS ELAEHLSSIF GLSQPELSQY E Y   69
NTDB id 1401 DSB67 RS12665 WP 010643259.1     ..........  ..........  ..........  ..EESLLEQV KASGISMPEA LLSSGFFQSH ELTEHLSSVF GLSCTSLNQY E Y   69
NTDB id 1110 NGFG RS09235 WP 003689817.1      ..........  ..........  ..........  ..AEHYYNES QA.GKEVLPM LFSDGVISPK SLAALIARVF SYSILDLRHY P R   68
NTDB id 1251 GCO85 RS07725 WP 011946523.1     ..........  ..........  ..........  ..AIELHKLA AAEKISLLQY IVKNKILSAE QIALTAAQNF GVPMLDINCI D V   77
NTDB id 310478 DZA53 RS18130 WP 011408072.1   ..........  ..........  ..........  ..ARTAMEQA AAAKVPLPQW FAENRLVSAS QLAAANAVEF GMPLMDVSVF D A   79
NTDB id 1058 ABD1 RS01615 WP 001274986.1      ..........  ..........  ..........  ..MQTALDAA KRAKQDTVAY LIEEVHLSPS LLAETISAEF AEPYFDLDVY D T   77
NTDB id 1018 ACIAD RS01685 WP 004920473.1     ..........  ..........  ..........  ..MQQALEKA KKFKQDIVPY LIDNFSISPL TIAEIISLEF GEPLLDLGVF D P   77
consensus                                                                          * **  * * *  *  **  **  *** **  **** *** **
```

logo

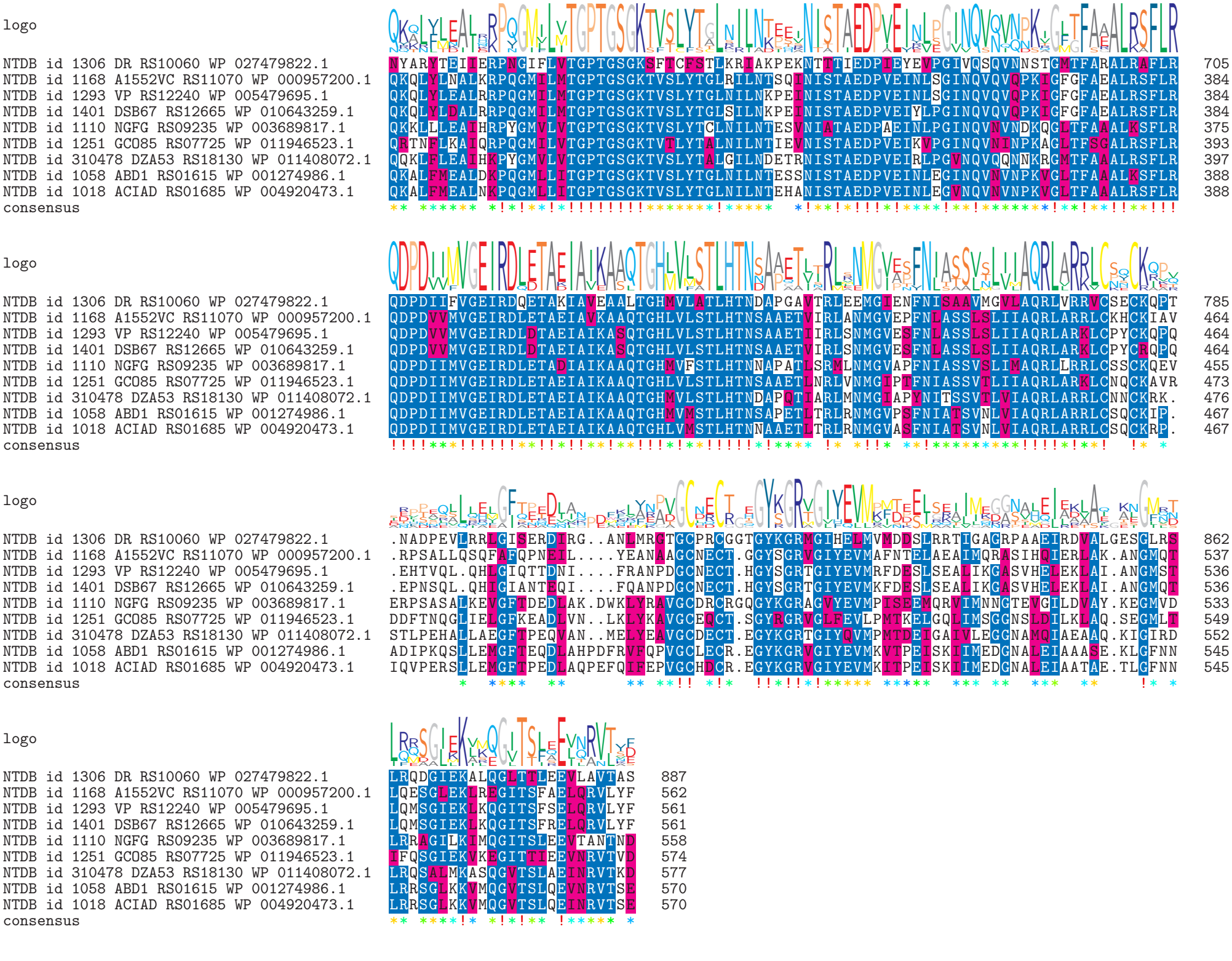
```
NTDB id 1306 DR RS10060 WP 027479822.1        DPKVALMIPE ATARRYVVVP VRLQGNSLVV AMKDPRNVFA LDDLKLITGK ELLPAVMAEK DIRLLIERYF GEKGFEKLNK  480
NTDB id 1168 A1552VC RS11070 WP 000957200.1   ANLCQQLGLR ELITRYDALP IAKQGNLLLL AVSDPTLLQA EEEFRFATGL QVELALADHR ALQAAIRRLY GRSIQGAANQ  149
NTDB id 1293 VP RS12240 WP 005479695.1        ASLCQQLGLR ELITRHNALP LHRTPSTLLL AVADPTNQQA EDDFRFATGL QVELVLADFR ELSTAIRRLY GRSLSHEKSG  149
NTDB id 1401 DSB67 RS12665 WP 010643259.1     ASLCQTLGLR DLITRHNALP LNRTSSTLIL AVADPTNLQA EDDFRFATGL QVELVLADFR ELTAAIRRLY GRSLGQEKSG  149
NTDB id 1110 NGFG RS09235 WP 003689817.1      HRVLMGVLTE EQMVEFHCVP VFRRGDKVFF AVSDPTQMPQ IQKTVSAAGI AVELVIVEDD QLAGLLDWVG SRSTSLLQEL  148
NTDB id 1251 GCO85 RS07725 WP 011946523.1     GTIPVNLVNE KLIKRHAMVP LFSRGTNLYL ATDDPSKQAS LKEIQFHTGL NTHAIVVETD KLSALIDNLL TAKESQGLSE  157
NTDB id 310478 DZA53 RS18130 WP 011408072.1   NQNAVKLVSE ELLQKYHVLP LFKRGNRLFV GVSNPTQTRA LDDIKFHTNL VVEPILVDED QIRRTLEQWQ ASNASFGSSL  159
NTDB id 1058 ABD1 RS01615 WP 001274986.1      SQIPKDLVDQ KLILKHRILP LIQRGQILYV ATSNPSNIEA IDAIRFNSKL LVEPVIVEHH KLEKVLGQHF AEESSFDFND  157
NTDB id 1018 ACIAD RS01685 WP 004920473.1     ALFLKDKIDE KLIQKYRIMP LVHRGHVLYV ATSNPTNIEA MDAIRFNSKL KVEPIIVEHD KLERLLSEHF VEETHFNFDT  157
consensus                                     * *   ** **** ** **!* ***  ********!*** ******** *** ** ****   *  **  ***   *
```

logo

```
NTDB id 1306 DR RS10060 WP 027479822.1        ELA.........  ..ERNKTQQS QEADLSVADE SAIVQVVDSI IREAALQDAS DIHIETTEDA VKVRYRIDGA LREQNS  547
NTDB id 1168 A1552VC RS11070 WP 000957200.1   GKEISQDELA NLVK....VS DDELQSIEDL SQDDSPVSRF INQVLLDAVR KGASDIHFEP YENQYRIRLR CDGILVETQQ  225
NTDB id 1293 VP RS12240 WP 005479695.1        LKEINQEELA SLVD....VG ADEIDNIEDL SQDESPVSRY INQILLDAVR KGASDIHFEP YEKMYRVRLR CDGILIETQQ  225
NTDB id 1401 DSB67 RS12665 WP 010643259.1     LKEINQDELA GLVD....IG EDEIENIEDL SQDESPVSRY INQILLDAVR KGASDIHFEP YENMYRVRLR CDGILIETQQ  225
NTDB id 1110 NGFG RS09235 WP 003689817.1      GEGQ.E........  ..EEESHTLY IDNEEAEDGP VPRFIHKTLS DALRSGASDI HFEFYEHNAR IRFRVDGQLR EVVQ  215
NTDB id 1251 GCO85 RS07725 WP 011946523.1     YVEDSGDLEG LEISADD...ED QDIDTATSVT DDAPIVKFVN KILLDAIRQG ASDIHFEPYE REYRIRYRQD GILHEVAT  234
NTDB id 310478 DZA53 RS18130 WP 011408072.1   GNDD.EEMGD LDVSTGDEDM GAGGDSGVDA KGDDTPVVKF VNKVLVDAIR RGASDIHFEP YEDDYRVRLR IDGLLKNVAK  238
NTDB id 1058 ABD1 RS01615 WP 001274986.1      .....EE.FD LDVN..LDGP TAQEDEEEAP QGDEAPIVKY INKLLIDAIR MGASDLHFEP YEKSYRVRYR VDGVLRQIAN  229
NTDB id 1018 ACIAD RS01685 WP 004920473.1     .....EE.LD LDVE..VDPH TTDDDDEDDK LKDEAPIVKY INKLLIDAIR MSASDLHFEP YEKSYRVRYR VDGVLRLIAT  229
consensus                                        *   *    *           *  **   ************!** *!!!*!*!**!  ***!*!*!!*!*** *
```

logo

```
NTDB id 1306 DR RS10060 WP 027479822.1        FPKGAAQQIM ARLKIMGHLD IAERRVPQDG RVRF..KKGS IDLDLRLSTL PTVYGEKAVM RLLQKASNIP ELEQLGFSEY  625
NTDB id 1168 A1552VC RS11070 WP 000957200.1   PASHLSRRLA ARIKILSKLD IAERRLPQDG RIKLRLSR.D TAIDMRVSTL PTLWGEKIVL RLLDSSAANL DIDKLGYNPQ  304
NTDB id 1293 VP RS12240 WP 005479695.1        PPNHLSRRLS ARIKILSKLD IAERRLPQDG RIKLKLNQ.D TAIDMRVSTL PTLFGEKIVL RLLDSSSASL DIDKLGYSEQ  304
NTDB id 1401 DSB67 RS12665 WP 010643259.1     PPSHLSRRLS ARIKILSKLD IAERRLPQDG RIKLKLNQ.D TAIDMRVSTL PTLFGEKIVL RLLDSSSAAL DINKLGYSDS  304
NTDB id 1110 NGFG RS09235 WP 003689817.1      PPIAVRGQLA SRIKVMSRLD ISEKRIPQDG RMQLTFQKGG KPVDFRVSTL PTLFGEKVVM RILNSDAASL NIDQLGFEPF  295
NTDB id 1251 GCO85 RS07725 WP 011946523.1     PPASLSSRIT ARIKVMSNLD ISERRIPQDG GFKMKISK.S RAIDFRVSTC PTSAGEKVVM RVLDSGAAKL GIEALGFNPV  313
NTDB id 310478 DZA53 RS18130 WP 011408072.1   APVKLSQRIA ARLKVMSQLD IAEKRVPQDG RIKLNLSK.T KQIDFRVSTL PTLFGEKVVL RILDGSAAKL GIDKLGYEPD  317
NTDB id 1058 ABD1 RS01615 WP 001274986.1      PPLQLANRLA SRLKVMSQMD ISEKRVPQDG RIKLKLSK.S KAIDFRVNSL PTLFGEKLVL RILDPSSAML GIDALGYEED  308
NTDB id 1018 ACIAD RS01685 WP 004920473.1     PPLQLATRLA SRLKVMSQMD ISEKRVPQDG RIKLKMSK.S KTIDFRVNSL PTLFGEKIVL RILDPASAML GIDALGYEPE  308
consensus                                     **  ** ****!*!*** *!!*!*!*!!!!*******  ****!*!****!!**!!!*!*!*!**** * ** !!* *
```


logo
NTDB id 1306 DR RS10060 WP 027479822.1 NYARYTEIIERPNGIFLVTGPTGSGKSFTCFSTLKRIAKPEKNTTTIEDPIEYEVPGIVQSQVNNSTGMTFARALRAFLR 705
NTDB id 1168 A1552VC RS11070 WP 000957200.1 QKQLYLNALKRPQGMILMTGPTGSGKTVSLYTGLRILNTSQINISTAEDPVEINLSGINQVQVQPKIGFGFAEALRSFLR 384
NTDB id 1293 VP RS12240 WP 005479695.1 QKQLYLEALRRPQGMILMTGPTGSGKTVSLYTGLNILNKPEINISTAEDPVEINLSGINQVQVQPKIGFGFAEALRSFLR 384
NTDB id 1401 DSB67 RS12665 WP 010643259.1 QKQLYLDALRRPQGMILMTGPTGSGKTVSLYTGLSILNKPEINISTAEDPVEIYLPGINQVQVQPKIGFGFAEALRSFLR 384
NTDB id 1110 NGFG RS09235 WP 003689817.1 QKKLLLEAIHRPYGMVLVTGPTGSGKTVSLYTCLNILNTESVNIATAEDPAEINLPGINQVNVNDKQGLTFAAALKSFLR 375
NTDB id 1251 GCO85 RS07725 WP 011946523.1 QRTNFLKAIQRPQGMILVTGPTGSGKTVTLYTALNILNTIEVNISTAEDPVEIKVPGINQVNINPKAGLTFSGALRSFLR 393
NTDB id 310478 DZA53 RS18130 WP 011408072.1 QQKLFLEAIHKPYGMVLVTGPTGSGKTVSLYTALGILNDETRNISTAEDPVEIRLPGVNQVQQNNKRGMTFAAALRSFLR 397
NTDB id 1058 ABD1 RS01615 WP 001274986.1 QKALFMEALDKPQGMLLITGPTGSGKTVSLYTGLNILNTESSNISTAEDPVEINLEGINQVNVNPKVGLTFAAALKSFLR 388
NTDB id 1018 ACIAD RS01685 WP 004920473.1 QKALFMEALNKPQGMLLITGPTGSGKTVSLYTGLNILNTEHANISTAEDPVEINLEGVNQVNVNPKVGLTFAAALRSFLR 388
consensus
logo
NTDB id 1306 DR RS10060 WP 027479822.1 QDPDIIFVGEIRDQETAKIAVEAALTGHMVLATLHTNDAPGAVTRLEEMGIENFNISAAVMGVLAQRLVRRVCSECKQPT 785
NTDB id 1168 A1552VC RS11070 WP 000957200.1 QDPDVVMVGEIRDLETAEIAVKAAQTGHLVLSTLHTNSAAETVIRLANMGVEPFNLASSLSLIIAQRLARRLCKHCKIAV 464
NTDB id 1293 VP RS12240 WP 005479695.1 QDPDVVMVGEIRDLDTAEIAIKASQTGHLVLSTLHTNSAAETIIRLSNMGVESFNLASSLSLIIAQRLARKLCPYCKQPQ 464
NTDB id 1401 DSB67 RS12665 WP 010643259.1 QDPDVVMVGEIRDLDTAEIAIKASQTGHLVLSTLHTNSAAETVIRLSNMGVESFNLASSLSLIIAQRLARKLCPYCRQPQ 464
NTDB id 1110 NGFG RS09235 WP 003689817.1 QDPDIIMVGEIRDLETADIAIKAAQTGHMVFSTLHTNNAPATLSRMLNMGVAPFNIASSVSLIMAQRLLRRLCSSCKQEV 455
NTDB id 1251 GCO85 RS07725 WP 011946523.1 QDPDIIMVGEIRDLETAEIAIKAAQTGHLVLSTLHTNSAAETLNRLVNMGIPTFNIASSVTLIIAQRLARKLCNQCKAVR 473
NTDB id 310478 DZA53 RS18130 WP 011408072.1 QDPDIIMVGEIRDLETAEIAIKAAQTGHMVLSTLHTNDAPQTIARLMNMGIAPYNITSSVTLVIAQRLARRLCNNCKRK. 476
NTDB id 1058 ABD1 RS01615 WP 001274986.1 QDPDIIMVGEIRDLETAEIAIKAAQTGHMVMSTLHTNSAPETLTRLRNMGVPSFNIATSVNLVIAQRLARRLCSQCKIP. 467
NTDB id 1018 ACIAD RS01685 WP 004920473.1 QDPDIIMVGEIRDLETAEIAIKAAQTGHLVMSTLHTNNAAETLTRLRNMGVASFNIATSVNLVIAQRLARRLCSQCKRP. 467
consensus
logo
NTDB id 1306 DR RS10060 WP 027479822.1 .NADPEVLRRLGISERDIRG..ANLMRGTGCPRCGGTGYKGRMGIHELMVMDDSLRRTIGAGRPAAEIRDVALGESGLRS 862
NTDB id 1168 A1552VC RS11070 WP 000957200.1 .RPSALLQSQFAFQPNEIL....YEANAAGCNECT.GGYSGRVGIYEVMAFNTELAEAIMQRASIHQIERLAK.ANGMQT 537
NTDB id 1293 VP RS12240 WP 005479695.1 .EHTVQL.QHLGIQTTDNI....FRANPDGCNECT.HGYSGRTGIYEVMRFDESLSEALIKGASVHELEKLAI.ANGMST 536
NTDB id 1401 DSB67 RS12665 WP 010643259.1 .EPNSQL.QHIGIANTEQI....FQANPDGCNECT.HGYSGRTGIYEVMKFDESLSEALIKGASVHELEKLAI.ANGMQT 536
NTDB id 1110 NGFG RS09235 WP 003689817.1 ERPSASALKEVGFTDEDLAK.DWKLYRAVGCDRCRGQGYKGRAGVYEVMPISEEMQRVIMNNGTEVGILDVAY.KEGMVD 533
NTDB id 1251 GCO85 RS07725 WP 011946523.1 DDFTNQGLIELGFKEADLVN..LKLYKAVGCEQCT.SGYRGRVGLFEVLPMTKELGQLIMSGGNSLDILKLAQ.SEGMLT 549
NTDB id 310478 DZA53 RS18130 WP 011408072.1 STLPEHALLAEGFTPEQVAN..MELYEAVGCDECT.EGYKGRTGIYQVMPMTDEIGAIVLEGGNAMQIAEAAQ.KIGIRD 552
NTDB id 1058 ABD1 RS01615 WP 001274986.1 ADIPKQSLLEMGFTEQDLAHPDFRVFQPVGCLECR.EGYKGRVGIYEVMKVTPEISKIIMEDGNALEIAAASE.KLGFNN 545
NTDB id 1018 ACIAD RS01685 WP 004920473.1 IQVPERSLLEMGFTPEDLAQPEFQIFEPVGCHDCR.EGYKGRVGIYEVMKITPEISKIIMEDGNALEIAATAE.TLGFNN 545
consensus
logo
NTDB id 1306 DR RS10060 WP 027479822.1 LRQDGIEKALQGLTTLEEVLAVTAS 887
NTDB id 1168 A1552VC RS11070 WP 000957200.1 LQESGLEKLREGITSFAELQRVLYF 562
NTDB id 1293 VP RS12240 WP 005479695.1 LQMSGIEKLKQGITSFSELQRVLYF 561
NTDB id 1401 DSB67 RS12665 WP 010643259.1 LQMSGIEKLKQGITSFRELQRVLYF 561
NTDB id 1110 NGFG RS09235 WP 003689817.1 LRRAGILKIMQGITSLEEVTANTND 558
NTDB id 1251 GCO85 RS07725 WP 011946523.1 IFQSGIEKVKEGITTIEEVNRVTVD 574
NTDB id 310478 DZA53 RS18130 WP 011408072.1 LRQSALMKASQGVTSLAEINRVTKD 577
NTDB id 1058 ABD1 RS01615 WP 001274986.1 LRRSGLKKVMQGVTSLQEVNRVTSE 570
NTDB id 1018 ACIAD RS01685 WP 004920473.1 LRRSGLKKVMQGVTSLQEINRVTSE 570
consensus

X non conserved
X similar
X $\geq$ 50% conserved