```
logo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 1028 TT RS08215 WP 011173991.1        MSVLTIGDKRLGAALLDAGLLTDEELQRALERHREVGGSLAEVLVDMGLLSERRIAQTIEDRFGIPLVELHRVEIPPKVK    80
NTDB id 1306 DR RS10060 WP 027479822.1        .MALSIGDRRLGAILLDQGYLGDNDLQRALERHSEVGGRLADVLIDSGMVGEKRIARAIEEALGIPLVNLLAVQPDPAAL    79
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 1251 GCO85 RS07725 WP 011946523.1     ..........................................................................................     0
NTDB id 1058 ABD1 RS01615 WP 001274986.1      ..........................................................................................     0
NTDB id 1018 ACIAD RS01685 WP 004920473.1     ..........................................................................................     0
NTDB id 993564 AAHN93 RS13525 WP 343292826.1  ..........................................................................................     0
NTDB id 1110 NGFG RS09235 WP 003689817.1      ..........................................................................................     0
consensus

logo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 1028 TT RS08215 WP 011173991.1        ALLPAEKAKELKAIPFALDEEAGVVRVAFLNPLDTLSLEEVEDLTGLVVEPYQTTKSAFLYALAKHYPELGLPVPPP..P   158
NTDB id 1306 DR RS10060 WP 027479822.1        RSIRPQTALNLQAFPFALE..GDRLRVALVDPLSSFSIETLEDDSGFDIEPYQALREEVMWAIATHYPELGLEIVVPSGA   157
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 1251 GCO85 RS07725 WP 011946523.1     ..........................................................................................     0
NTDB id 1058 ABD1 RS01615 WP 001274986.1      ..........................................................................................     0
NTDB id 1018 ACIAD RS01685 WP 004920473.1     ..........................................................................................     0
NTDB id 993564 AAHN93 RS13525 WP 343292826.1  ..........................................................................................     0
NTDB id 1110 NGFG RS09235 WP 003689817.1      ..........................................................................................     0
consensus

logo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 1028 TT RS08215 WP 011173991.1        SGEGQKDLKLGELLLQKGWISREALEEALVEQEKTGDLLGRILV.RKGLPEEALYRALAEQKGLEFLESTEGIVPDPSAA   237
NTDB id 1306 DR RS10060 WP 027479822.1        SDAGRTGGKLGERLITHGYITDAQLQVALDAQQQTGEALGATLISQRAITEDQLYEVLAEQEGTTFLPNPSGFHPGEEVL   237
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 1251 GCO85 RS07725 WP 011946523.1     ..........................................................................................     0
NTDB id 1058 ABD1 RS01615 WP 001274986.1      ..........................................................................................     0
NTDB id 1018 ACIAD RS01685 WP 004920473.1     ..........................................................................................     0
NTDB id 993564 AAHN93 RS13525 WP 343292826.1  ..........................................................................................     0
NTDB id 1110 NGFG RS09235 WP 003689817.1      ..........................................................................................     0
consensus
```

```
logo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 1028 TT RS08215 WP 011173991.1          LLLLRSDALRYGAVPIGFQNGEVEVVLSDPRHKEAVAQLLNRPARFYLALPQAWEELFRRAYPQKNRLGEVLVQEGKLSR   317
NTDB id 1306 DR RS10060 WP 027479822.1          GSMLRADALRLLAVPVDETEQGVTVLTSDPRKRPDIDALIGRPVQLMLTRPRDIERLIEQFYPQRGRLGEQLVQEGTLSR   317
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 1251 GC085 RS07725 WP 011946523.1       ..........................................................................   0
NTDB id 1058 ABD1 RS01615 WP 001274986.1        ........................................................................MS.   2
NTDB id 1018 ACIAD RS01685 WP 004920473.1       ........................................................................MS.   2
NTDB id 993564 AAHN93 RS13525 WP 343292826.1    ........................................................................MAT   3
NTDB id 1110 NGFG RS09235 WP 003689817.1        ..........................................................................   0
consensus                                                                                                                *

logo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 1028 TT RS08215 WP 011173991.1          EALKEALEVQKGLPRAKPLGEILVELGLARPEDVEEALQKQRRGGGRLEDTLVQSGKLRPEALAQAVATQLGYPYVDPEE   397
NTDB id 1306 DR RS10060 WP 027479822.1          DQLREALQVQAREGKVKPLGEVITELGFASPDEVDSALQKQNVGGGRLEDTLVQSGKLSPEMLARSLAAQLGYEFLDPIQ   397
NTDB id 1168 A1552VC RS11070 WP 000957200.1     ...............MLTNLVAILRQAELISATQEQAVVTQVSASGTSVPEALLELSIFHAQELTEQLSHIFGLPETDLSR   66
NTDB id 1293 VP RS12240 WP 005479695.1          ...............MHSNLSTILRQKGLLTFSQEESLIEQVKASGISMPEALLSSGFFTSSELAEHLSSIFGLSQPELSQ   66
NTDB id 1401 DSB67 RS12665 WP 010643259.1       ...............MLTNLSTVLRQAGILTFSQEESLLEQVKASGISMPEALLSSGFFQSHELTEHLSSVFGLSCTSLNQ   66
NTDB id 1251 GC085 RS07725 WP 011946523.1       ......MALATEEYRLQGIGQLLVLEKLLDKTKAIELHKLAAAEKISLLQYIVKNKILSAEQIALTAAQNFGVPMLDINC   74
NTDB id 1058 ABD1 RS01615 WP 001274986.1        ........ALHTSPKFTGFFRRLVEEKHVSAATMQTALDAAKRAKQDTVAYLIEEVHLSPSLLAETISAEFAEPYFDLDV   74
NTDB id 1018 ACIAD RS01685 WP 004920473.1       ........AFTTPPKFSGFIRRLVEEGYVNAQNMQQALEKAKKFKQDIVPYLIDNFSISPLTIAEIISLEFGEPLLDLGV   74
NTDB id 993564 AAHN93 RS13525 WP 343292826.1   EDL...TKKATAELVVPSVARAFLVAKQLTQEQVDATLQRARNEGRDFLSALVEGNVLSATQAAKTISDVFAVPYIDLGS   80
NTDB id 1110 NGFG RS09235 WP 003689817.1        ...............MSVGLLRI.LVQNQVVTVEQAEHYYNESQAGKEVLPMLFSDGVISPKSLAALIARVFSYSILDLRH   65
consensus                                                                 ** *  ***  ****  ***  *   *  *  *** **  * ***  *** ** ***** ***

logo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 1028 TT RS08215 WP 011173991.1          DPPDPGAPLLLPEDLCRRYGVFPHRLEGNRLVLLMKDPRNILALDDVRLALKRKGLNYEVAPAVATEAAITKLIERFYGK   477
NTDB id 1306 DR RS10060 WP 027479822.1          NPPDPKVALMIPEATARRYVVVPVRLQGNSLVVAMKDPRNVFALDDLKLITG.....KEILPAVMAEKDIIRLIERYFGE   472
NTDB id 1168 A1552VC RS11070 WP 000957200.1     YDYANLCQQLGLRELITRYDALPIAKQGNLLLLAVSDPTLLQAEEEFRFATG.....LQVELALADHRALQAAIRRLYGR   141
NTDB id 1293 VP RS12240 WP 005479695.1          YEYASLCQQLGLRELITRHNALPLHRTPSTLLLAVADPTNQQAEDDFRFATG.....LQVELVLADFRELSTAIRRLYGR   141
NTDB id 1401 DSB67 RS12665 WP 010643259.1       YEYASLCQTLGLRDLITRHNALPLNRTSSTLILAVADPTNLQAEDDFRFATG.....LQVELVLADFRELTAAIRRLYGR   141
NTDB id 1251 GC085 RS07725 WP 011946523.1       IDVGTIPVNLVNEKLIKRHAMVPLFSRGTNLYLATDDPSKQASLKEIQFHTG.....LNTHAIVVETDKLSALIDNLLTA   149
NTDB id 1058 ABD1 RS01615 WP 001274986.1        YDTSQIPKDLVDQKLILKHRILPLIQRGQILYVATSNPSNIEAIDAIRFNSK.....LLVEPVIVEHHKLEKVLGQHFAE   149
NTDB id 1018 ACIAD RS01685 WP 004920473.1       FDPALFLKDKIDEKLIQKYRIMPLVHRGHVLYVATSNPTNIEAMDAIRFNSK.....LKVEPIIVEHDKLERLLSEHFVE   149
NTDB id 993564 AAHN93 RS13525 WP 343292826.1   VDAMRLPADLLDLKLCLSYKVVVLGKRQNRLIVASADPSNRDTAEKLKFATQ.....ASIEWLVAAHDKIAALLDELAKA   155
NTDB id 1110 NGFG RS09235 WP 003689817.1        YPRHRVLMGVLTEEQMVEFHCVPVFRRGDKVFFAVSDPTQMPQIQKTVSAAG.....IAVELVIVEDDQLAGLLDWVGS.   139
consensus                                       ** * *   ** **** ** **** **** ***** *!*** **********     * ** ****   * ********
```

```
logo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 1028 TT RS08215 WP 011173991.1          AELSEIA.......KEFAKK.....QAEEEV..PSPLELDESAAQKFVKQVIREAFLQDASDIHIEPRQNDVQVRLRIDG   543
NTDB id 1306 DR RS10060 WP 027479822.1          KGFEKLN.......KELAER.....NKTQQSQEADLSVADESAIVQVVDSIIREAALQDASDIHIETTEDAVKVRYRIDG   540
NTDB id 1168 A1552VC RS11070 WP 000957200.1     SIQGAANQGKEISQDELANLVKVS...DDELQSIEDLSQDDSPVSRFINQVLLDAVRKGASDIHFEPYENQYRIRLRCDG   218
NTDB id 1293 VP RS12240 WP 005479695.1          SLSHEKSGLKEINQEELASLVDVG...ADEIDNIEDLSQDESPVSRYINQILLDAVRKGASDIHFEPYEKMYRVRLRCDG   218
NTDB id 1401 DSB67 RS12665 WP 010643259.1       SLGQEKSGLKEINQDELAGLVDIG...EDEIENIEDLSQDESPVSRYINQILLDAVRKGASDIHFEPYENMYRVRLRCDG   218
NTDB id 1251 GC085 RS07725 WP 011946523.1       KESQGLS..EYVEDSGDLEGLEISADDEDQDIDTATSVTDDAPIVKFVNKILLDAIRQGASDIHFEPYEREYRIRYRQDG   227
NTDB id 1058 ABD1 RS01615 WP 001274986.1        E....SS..FDFNDEEFDLDVNL.DGPTAQEDEEEAPQGDEAPIVKYINKLLIDAIRMGASDLHFEPYEKSYRVRYRVDG   222
NTDB id 1018 ACIAD RS01685 WP 004920473.1       E....TH..FNFDTEELDLDVEV.DPHTTDDDDEDDKLKDEAPIVKYINKLLIDAIRMSASDLHFEPYEKSYRVRYRVDG   222
NTDB id 993564 AAHN93 RS13525 WP 343292826.1   NALDGQS..SDFQFDELDGAVE...DVTEESASDPSSDAEDAPVVRFLQKMIIDAYRLGASDLHFEPYEFNYRVRFRIDG   230
NTDB id 1110 NGFG RS09235 WP 003689817.1        ......R..STSLLQELGEGQE...EEESHTLYIDNEEAEDGPVPRFIHKTLSDALRSGASDIHFEFYEHNARIRFRVDG   208
consensus                                             *   *   ****  ***    ***    *    ***************!** *!!!*!*!***  ***!*!*!!

logo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 1028 TT RS08215 WP 011173991.1          ALRPYSTLPKGALNAVISVVKIMGGLNIAEKRLPQDGRVRY..REGAIDVDLRLSTLPTVYGEKAVMRLLKKASDIPEIE   621
NTDB id 1306 DR RS10060 WP 027479822.1          ALREQNSFPKGAAQQIMARLKIMGHLDIAERRVPQDGRVRF..KKGSIDLDLRLSTLPTVYGEKAVMRLLQKASNIPELE   618
NTDB id 1168 A1552VC RS11070 WP 000957200.1     ILVETQQPASHLSRRLAARIKILSKLDIAERRLPQDGRIKLRLSR.DTAIDMRVSTLPTLWGEKIVLRLLDSSAANLDID   297
NTDB id 1293 VP RS12240 WP 005479695.1          ILIETQQPPNHLSRRLSARIKILSKLDIAERRLPQDGRIKLKLNQ.DTAIDMRVSTLPTLFGEKIVLRLLDSSSASLDID   297
NTDB id 1401 DSB67 RS12665 WP 010643259.1       ILIEIQQPPSHLSRRLSARIKILSKLDIAERRLPQDGRIKLKLNQ.DTAIDMRVSTLPTLFGEKIVLRLLDSSSAALDIN   297
NTDB id 1251 GC085 RS07725 WP 011946523.1       ILHEVATPPASLSSRITARIKVMSNLDISERRIPQDGGFKMKISK.SRAIDFRVSTCPTSAGEKVVMRVLDSGAAKLGIE   306
NTDB id 1058 ABD1 RS01615 WP 001274986.1        VLRQIANPPLQLANRLASRLKVMSQMDISEKRVPQDGRIKLKLSK.SKAIDFRVNSLPTLFGEKLVLRILDPSSAMLGID   301
NTDB id 1018 ACIAD RS01685 WP 004920473.1       VLRLIATPPLQLATRLASRLKVMSQMDISEKRVPQDGRIKLKMSK.SKTIDFRVNSLPTLFGEKIVLRILDPASAMLGID   301
NTDB id 993564 AAHN93 RS13525 WP 343292826.1   ELREYAAPPVSIKERLASRIKVISRLDIAEKRIPQDGRTKM..RIGGKSIDFRVSTLPTLFGEKIVIRILDSSNAKIGID   308
NTDB id 1110 NGFG RS09235 WP 003689817.1        QLREVVQPPIAVRGQLASRIKVMSRLDISEKRIPQDGRMQLTFQKGGKPVDFRVSTLPTLFGEKVVMRILNSDAASLNID   288
consensus                                       *!*** ***  *  *** **!******!*!*!*!!!!****** *  ***!*!****!!**!!!*!*!*!***** ****

logo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 1028 TT RS08215 WP 011173991.1          DLGFAPGVFERFKEVISKPYGIFLITGPTGSGKSFTTFSILKRIATPDKNTQTIEDPVEYEIPGINQTQVNPQAGLTFAR   701
NTDB id 1306 DR RS10060 WP 027479822.1          QLGFSEYNYARYTEIIERPNGIFLVTGPTGSGKSFTCFSTLKRIAKPEKNTTTIEDPIEYEVPGIVQSQVNNSTGMTFAR   698
NTDB id 1168 A1552VC RS11070 WP 000957200.1     KLGYNPQQKQLYLNALKRPQGMILMTGPTGSGKTVSLYTGLRILNTSQINISTAEDPVEINLSGINQVQVQPKIGFGFAE   377
NTDB id 1293 VP RS12240 WP 005479695.1          KLGYSEQQKQLYLEALRRPQGMILMTGPTGSGKTVSLYTGLNILNKPEINISTAEDPVEINLSGINQVQVQPKIGFGFAE   377
NTDB id 1401 DSB67 RS12665 WP 010643259.1       KLGYSDSQKQLYLDALRRPQGMILMTGPTGSGKTVSLYTGLSILNKPEINISTAEDPVEIYLPGINQVQVQPKIGFGFAE   377
NTDB id 1251 GC085 RS07725 WP 011946523.1       ALGFNPVQRTNFLKAIQRPQGMILVTGPTGSGKTVTLYTALNILNTIEVNISTAEDPVEIKVPGINQVNINPKAGLTFSG   386
NTDB id 1058 ABD1 RS01615 WP 001274986.1        ALGYEEDQKALFMEALDKPQGMLLITGPTGSGKTVSLYTGLNILNTESSNISTAEDPVEINLEGINQVNVNPKVGLTFAA   381
NTDB id 1018 ACIAD RS01685 WP 004920473.1       ALGYEPEQKALFMEALNKPQGMLLITGPTGSGKTVSLYTGLNILNTEHANISTAEDPVEINLEGVNQVNVNPKVGLTFAA   381
NTDB id 993564 AAHN93 RS13525 WP 343292826.1   ALGYEPIEKERLLTAIERPYGMVLVTGPTGSGKTVSLYTCLNLLNKPGVNISTAEDPSEINLPGVNQVNVNEKAGLTFAA   388
NTDB id 1110 NGFG RS09235 WP 003689817.1        QLGFEPFQKKLLLEAIHRPYGMVLVTGPTGSGKTVSLYTCLNILNTESVNIATAEDPAEINLPGINQVNVNDKQGLTFAA   368
consensus                                        !!* * ** ****** *!*!**!*!!!!!!!!*******!********!**!*!!!*!****!**!*******!**!**
```

```
logo
```

```
NTDB id 1028 TT RS08215 WP 011173991.1          ALRAFLRQDPDIIMVGEIRDSETAKIATEAALTGHLVIATLHTNDAAQAITRLDEMGVEPFNISAALIGVLSQRLVRRVC   781
NTDB id 1306 DR RS10060 WP 027479822.1          ALRAFLRQDPDIIFVGEIRDQETAKIAVEAALTGHMVLATLHTNDAPGAVTRLEEMGIENFNISAAVMGVLAQRLVRRVC   778
NTDB id 1168 A1552VC RS11070 WP 000957200.1     ALRSFLRQDPDVVMVGEIRDLETAEIAVKAAQTGHLVLSTLHTNSAAETVIRLANMGVEPFNLASSLSLIIAQRLARRLC   457
NTDB id 1293 VP RS12240 WP 005479695.1          ALRSFLRQDPDVVMVGEIRDLDTAEIAIKASQTGHLVLSTLHTNSAAETIIRLSNMGVESFNLASSLSLIIAQRLARKLC   457
NTDB id 1401 DSB67 RS12665 WP 010643259.1       ALRSFLRQDPDVVMVGEIRDLDTAEIAIKASQTGHLVLSTLHTNSAAETVIRLSNMGVESFNLASSLSLIIAQRLARKLC   457
NTDB id 1251 GC085 RS07725 WP 011946523.1       ALRSFLRQDPDIIMVGEIRDLETAEIAIKAAQTGHLVLSTLHTNSAAETLNRLVNMGIPTFNIASSVTLIIAQRLARKLC   466
NTDB id 1058 ABD1 RS01615 WP 001274986.1        ALKSFLRQDPDIIMVGEIRDLETAEIAIKAAQTGHMVMSTLHTNSAPETLTRLRNMGVPSFNIATSVNLVIAQRLARRLC   461
NTDB id 1018 ACIAD RS01685 WP 004920473.1       ALRSFLRQDPDIIMVGEIRDLETAEIAIKAAQTGHLVMSTLHTNNAAETLTRLRNMGVASFNIATSVNLVIAQRLARRLC   461
NTDB id 993564 AAHN93 RS13525 WP 343292826.1   ALKSFLRQDPDIIMVGEIRDLETADIAIKAAQTGHLVLSTLHTNDAPTTLTRLRNMGIAPFNIASSVILITAQRLARRLC   468
NTDB id 1110 NGFG RS09235 WP 003689817.1        ALKSFLRQDPDIIMVGEIRDLETADIAIKAAQTGHMVFSTLHTNNAPATLSRMLNMGVAPFNIASSVSLIMAQRLLRRLC   448
consensus                                       !!**!!!!!!!***!!!!!!**!!*!!**!**!!!*!**!!!!!*!*****!* *!!***!!**********!!!*!**!
```

```
logo
```

```
NTDB id 1028 TT RS08215 WP 011173991.1          EHCKVEVKPDPE.TLRRLGLSEAEIQ..GARLYKGMGCERCGGTGYKGRYAIHELLVVDDEIRHAIVAGKSATEIKEIAR   858
NTDB id 1306 DR RS10060 WP 027479822.1          SECKQPTNADPE.VLRRLGISERDIR..GANLMRGTGCPRCGGTGYKGRMGIHELMVMDDSLRRTIGAGRPAAEIRDVAL   855
NTDB id 1168 A1552VC RS11070 WP 000957200.1     KHCKIAVRPSAL.LQSQFAFQPNEI....LYEANAAGCNECT.GGYSGRVGIYEVMAFNTELAEAIMQRASIHQIERLAK   531
NTDB id 1293 VP RS12240 WP 005479695.1          PYCKQPQEHTVQ.L.QHLGIQTTDN....IFRANPDGCNECT.HGYSGRTGIYEVMRFDESLSEALIKGASVHELEKLAI   530
NTDB id 1401 DSB67 RS12665 WP 010643259.1       PYCRQPQEPNSQ.L.QHIGIANTEQ....IFQANPDGCNECT.HGYSGRTGIYEVMKFDESLSEALIKGASVHELEKLAI   530
NTDB id 1251 GC085 RS07725 WP 011946523.1       NQCKAVRDDFTNQGLIELGFKEADLV..NLKLYKAVGCEQCT.SGYRGRVGLFEVLPMTKELGQLIMSGGNSLDILKLAQ   543
NTDB id 1058 ABD1 RS01615 WP 001274986.1        SQCKIPADIPKQ.SLLEMGFTEQDLAHPDFRVFQPVGCLECR.EGYKGRVGIYEVMKVTPEISKIIMEDGNALEIAAASE   539
NTDB id 1018 ACIAD RS01685 WP 004920473.1       SQCKRPIQVPER.SLLEMGFTPEDLAQPEFQIFEPVGCHDCR.EGYKGRVGIYEVMKITPEISKIIMEDGNALEIAATAE   539
NTDB id 993564 AAHN93 RS13525 WP 343292826.1   NQCKEETDIPVD.ALIDAGFNYDDLD.GSWVPYKPVGCSACN.NGYKGRVGIYQVMPISEEIQRIILNDGSAIEIQEQAE   545
NTDB id 1110 NGFG RS09235 WP 003689817.1        SSCKQEVERPSASALKEVGFTDEDLA.KDWKLYRAVGCDRCRGQGYKGRAGVYEVMPISEEMQRVIMNNGTEVGILDVAY   527
consensus                                         !* * *       * ****** **       *****!! *!    !!*!!******* ***** **** *******   **
```

```
logo
```

```
NTDB id 1028 TT RS08215 WP 011173991.1          .RKGMKTLREDGLYKALQGITTLEEVLARTIE   889
NTDB id 1306 DR RS10060 WP 027479822.1          GESGLRSLRQDGIEKALQGLTTLEEVLAVTAS   887
NTDB id 1168 A1552VC RS11070 WP 000957200.1     .ANGMQTLQESGLEKLREGITSFAELQRVLYF   562
NTDB id 1293 VP RS12240 WP 005479695.1          .ANGMSTLQMSGIEKLKQGITSFSELQRVLYF   561
NTDB id 1401 DSB67 RS12665 WP 010643259.1       .ANGMQTLQMSGIEKLKQGITSFRELQRVLYF   561
NTDB id 1251 GC085 RS07725 WP 011946523.1       .SEGMLTIFQSGIEKVKEGITTIEEVNRVTVD   574
NTDB id 1058 ABD1 RS01615 WP 001274986.1        .KLGFNNLRRSGLKKVMQGVTSLQEVNRVTSE   570
NTDB id 1018 ACIAD RS01685 WP 004920473.1       .TLGFNNLRRSGLKKVMQGVTSLQEINRVTSE   570
NTDB id 993564 AAHN93 RS13525 WP 343292826.1   .KEGVRTLRQSGLQKVKLGVTSLEEVLAVTNE   576
NTDB id 1110 NGFG RS09235 WP 003689817.1        .KEGMVDLRRAGILKIMQGITSLEEVTANTND   558
consensus                                          !* *** *!**!* *!*!***!***** *
```

X non conserved

X similar

X $\geq$ 50% conserved