```
logo

NTDB id 1028 TT RS08215 WP 011173991.1        MSVLTIGDKRLGAALLDAGLLTDEELQRALERHREVGGSLAEVLVDMGLLSERRIAQTIEDRFGIPLVELHRVEIPPKVK   80
NTDB id 1366 NTHI RS01950 WP 011271972.1      ................................................................................    0
NTDB id 1355 HI 0298 AAC21962.1               ................................................................................    0
NTDB id 1384 A4U84 RS08525 WP 010787006.1     ................................................................................    0
NTDB id 1468 ASU2 RS05090 WP 014991734.1      ................................................................................    0
NTDB id 88619 AAF13 RS18425 WP 001025173.1    ................................................................................    0
NTDB id 1436 BW25113 RS00530 WP 001025145.1   ................................................................................    0
NTDB id 1168 A1552VC RS11070 WP 000957200.1   ................................................................................    0
NTDB id 1401 DSB67 RS12665 WP 010643259.1     ................................................................................    0
NTDB id 1293 VP RS12240 WP 005479695.1        ................................................................................    0
NTDB id 1110 NGFG RS09235 WP 003689817.1      ................................................................................    0
NTDB id 1251 GC085 RS07725 WP 011946523.1     ................................................................................    0
NTDB id 1018 ACIAD RS01685 WP 004920473.1     ................................................................................    0
NTDB id 1058 ABD1 RS01615 WP 001274986.1      ................................................................................    0
consensus

logo

NTDB id 1028 TT RS08215 WP 011173991.1        ALLPAEKAKELKAIPFALDEEAGVVRVAFLNPLDTLSLEEVEDLTGLVVEPYQTTKSAFLYALAKHYPELGLPVPPPPSG  160
NTDB id 1366 NTHI RS01950 WP 011271972.1      ................................................................................    0
NTDB id 1355 HI 0298 AAC21962.1               ................................................................................    0
NTDB id 1384 A4U84 RS08525 WP 010787006.1     ................................................................................    0
NTDB id 1468 ASU2 RS05090 WP 014991734.1      ................................................................................    0
NTDB id 88619 AAF13 RS18425 WP 001025173.1    ................................................................................    0
NTDB id 1436 BW25113 RS00530 WP 001025145.1   ................................................................................    0
NTDB id 1168 A1552VC RS11070 WP 000957200.1   ................................................................................    0
NTDB id 1401 DSB67 RS12665 WP 010643259.1     ................................................................................    0
NTDB id 1293 VP RS12240 WP 005479695.1        ................................................................................    0
NTDB id 1110 NGFG RS09235 WP 003689817.1      ................................................................................    0
NTDB id 1251 GC085 RS07725 WP 011946523.1     ................................................................................    0
NTDB id 1018 ACIAD RS01685 WP 004920473.1     ................................................................................    0
NTDB id 1058 ABD1 RS01615 WP 001274986.1      ................................................................................    0
consensus

logo

NTDB id 1028 TT RS08215 WP 011173991.1        EGQKDLKLGELLLQKGWISREALEEALVEQEKTGDLLGRILVRKGLPEEALYRALAEQKGLEFLESTEGIVPDPSAALLL  240
NTDB id 1366 NTHI RS01950 WP 011271972.1      ................................................................................    0
NTDB id 1355 HI 0298 AAC21962.1               ................................................................................    0
NTDB id 1384 A4U84 RS08525 WP 010787006.1     ................................................................................    0
NTDB id 1468 ASU2 RS05090 WP 014991734.1      ................................................................................    0
NTDB id 88619 AAF13 RS18425 WP 001025173.1    ................................................................................    0
NTDB id 1436 BW25113 RS00530 WP 001025145.1   ................................................................................    0
NTDB id 1168 A1552VC RS11070 WP 000957200.1   ................................................................................    0
NTDB id 1401 DSB67 RS12665 WP 010643259.1     ................................................................................    0
NTDB id 1293 VP RS12240 WP 005479695.1        ................................................................................    0
NTDB id 1110 NGFG RS09235 WP 003689817.1      ................................................................................    0
NTDB id 1251 GC085 RS07725 WP 011946523.1     ................................................................................    0
NTDB id 1018 ACIAD RS01685 WP 004920473.1     ................................................................................    0
NTDB id 1058 ABD1 RS01615 WP 001274986.1      ................................................................................    0
consensus
```

logo



```
NTDB id 1028 TT RS08215 WP 011173991.1      LRSDALRYGAVPIGFQNGEVEVVLSDPRHKEAVAQLLNRPARFYLALPQAWEELFRRAYPQKNRLGEVLVQEGKLSREAL   320
NTDB id 1366 NTHI RS01950 WP 011271972.1    ................................................................................   0
NTDB id 1355 HI 0298 AAC21962.1             ................................................................................   0
NTDB id 1384 A4U84 RS08525 WP 010787006.1   ................................................................................   0
NTDB id 1468 ASU2 RS05090 WP 014991734.1    ................................................................................   0
NTDB id 88619 AAF13 RS18425 WP 001025173.1  ................................................................................   0
NTDB id 1436 BW25113 RS00530 WP 001025145.1 ................................................................................   0
NTDB id 1168 A1552VC RS11070 WP 000957200.1 ................................................................................   0
NTDB id 1401 DSB67 RS12665 WP 010643259.1   ................................................................................   0
NTDB id 1293 VP RS12240 WP 005479695.1      ................................................................................   0
NTDB id 1110 NGFG RS09235 WP 003689817.1    ................................................................................   0
NTDB id 1251 GCO85 RS07725 WP 011946523.1   ................................................................................   0
NTDB id 1018 ACIAD RS01685 WP 004920473.1   ................................................................................   0
NTDB id 1058 ABD1 RS01615 WP 001274986.1    ................................................................................   0
consensus
```

logo



```
NTDB id 1028 TT RS08215 WP 011173991.1      KEALEVQKGLPRAKPLGEILVELGLARPEDVEEALQKQRRGGGRLEDTLVQSGKLRPEALAQAVATQLGYPYVDPEEDPP   400
NTDB id 1366 NTHI RS01950 WP 011271972.1    ..............................................MTSY....ALLHTQRVTAQNGEIFTI.........SP    24
NTDB id 1355 HI 0298 AAC21962.1             ..............................................MTSY....ALLHTQRVTAKNGEVFTI.........SP    24
NTDB id 1384 A4U84 RS08525 WP 010787006.1   ..............................................MSQY....T.....ICEQQTERIFDI.........SP    19
NTDB id 1468 ASU2 RS05090 WP 014991734.1    ..............................................MQY....S.....VCDMNSQQVFDI.........SE    18
NTDB id 88619 AAF13 RS18425 WP 001025173.1  ..........................................................................MNIPQL.......     6
NTDB id 1436 BW25113 RS00530 WP 001025145.1 ..........................................................................MNIPQL.......     6
NTDB id 1168 A1552VC RS11070 WP 000957200.1 ..........MLTNLVAILRQAELISATQEQAVVTQVSASGTSVPEALLELSIFHAQELTEQLSHIFGLPETDLSRYDY    69
NTDB id 1401 DSB67 RS12665 WP 010643259.1   ..........MLTNLSTVLRQAGILTFSQEESLLEQVKASGISMPEALLSSGFFQSHELTEHLSSVFGLSCTSLNQYEY    69
NTDB id 1293 VP RS12240 WP 005479695.1      ..........MHSNLSTILRQKGLLTFSQEESLIEQVKASGISMPEALLSSGFFTSSELAEHLSSIFGLSQPELSQYEY    69
NTDB id 1110 NGFG RS09235 WP 003689817.1    ..........MSVGLLRILVQNQVVTVEQAEHYY.NESQAGKEVLPMLFSDGVISPKSLAALIARVFSYSILDLRHYPR    68
NTDB id 1251 GCO85 RS07725 WP 011946523.1   ...MALATEEYRLQGIGQLLVLEKLLDKTKAIELHKLAAAEKISLLQYIVKNKILSAEQIALTAAQNFGVPMLDINCIDV    77
NTDB id 1018 ACIAD RS01685 WP 004920473.1   ...MSAFTTPPKFSGFIRRLVEEGYVNAQNMQQALEKAKKFKQDIVPYLIDNFSISPLTIAEIISLEFGEPLLDLGVFDP    77
NTDB id 1058 ABD1 RS01615 WP 001274986.1    ...MSALHTSPKFTGFFRRLVEEKHVSAATMQTALDAAKRAKQDTVAYLIEEVHLSPSLLAETISAEFAEPYFDLDVYDT    77
consensus                                                 *                 *   *           *       **  *
```

logo



```
NTDB id 1028 TT RS08215 WP 011173991.1      DPGAPLLLPEDLCRRYGVFPHRLEGNRLVLLMKDPRNILALDDVRLALKRKGLNYEVAPAVATEAAITKLIERFYGKAEL   480
NTDB id 1366 NTHI RS01950 WP 011271972.1    DLWERNQQQQSLLLRYFALPLKEENNRLWLGVDSLSNLSACETIAFITGK.....PVEPILLESSQLKELLQQLTPHQMQ    99
NTDB id 1355 HI 0298 AAC21962.1             DLWERNQQQQSLLLRYFALPLKEENNRLWLGVDSLSNLSACETIAFITGK.....PVEPILLESSQLKELLQQLTPNQMQ    99
NTDB id 1384 A4U84 RS08525 WP 010787006.1   SRWQKNCEEKQLLLRYLAVPVQETEHKLWLAVDDENNLTACEIFAFMTHK.....QIEPVVIASDELKYLLNALSPEQQP    94
NTDB id 1468 ASU2 RS05090 WP 014991734.1    SLWQKNCDEKHILLRYLAIPIQENDDTLWLAIDDMNNLSACEIFAFIAHK.....TIEPVLISSDELKYLLNQLSPEQQS    93
NTDB id 88619 AAF13 RS18425 WP 001025173.1  .........TALCLRYQGVLLDASEEVVHVAVVDAPSHELLDALHFATTK.....RIEITCWTRQQMEGHA.........     63
NTDB id 1436 BW25113 RS00530 WP 001025145.1 .........TALCLRYHGVLLDASEEVVHVAVVDAPSHELLDALHFATTK.....RIEITCWTRQQMEGHA.........     63
NTDB id 1168 A1552VC RS11070 WP 000957200.1 ANLCQQLGLRELITRYDALPIAKQGNLLLLAVSDPTLLQAEEEFRFATGL.....QVELALADHRALTQAAIRRLYGRSIQ   144
NTDB id 1401 DSB67 RS12665 WP 010643259.1   ASLCQTLGLRDLITRHNALPLNRTSSTLILAVADPTNLQAEDDFRFATGL.....QVELVLADFRELTAAIRRLYGRSLG   144
NTDB id 1293 VP RS12240 WP 005479695.1      ASLCQQLGLRELITRHNALPLHRTPSTLLLAVADPTNQQAEDDFRFATGL.....QVELVLADFRELSTAIRRLYGRSLS   144
NTDB id 1110 NGFG RS09235 WP 003689817.1    HRVLMGVLTEEQMVEFHCVPVFRRGDKVFFAVSDPTQMPQIQKTVSAAGI.....AVELVIVEDDQLAGLLDWVGSRSTS   143
NTDB id 1251 GCO85 RS07725 WP 011946523.1   GTIPVNLVNEKLIKRHAMVPLFSRGTNLYLATDDPSKQASLKEIQFHTGL.....NTHAIVVETDKLSALIDNLLTAKES   152
NTDB id 1018 ACIAD RS01685 WP 004920473.1   ALFLKDKIDEKLIQKYRIMPLVHRGHVLYVATSNPTNIEAMDAIRFNSKL.....KVEPIIVEHDKLERLLSEHFVEETH   152
NTDB id 1058 ABD1 RS01615 WP 001274986.1    SQIPKDLVDQKLILKHRILPLIQRGQILYVATSNPSNIEAIDAIRFNSKL.....LVEPVIVEHHKLEKVLGQHFAEESS   152
consensus                                        *****  ****       *****  *****  *  *  *  *  *        **  ****    *   **   *
```

logo



```
NTDB id 1028 TT RS08215 WP 011173991.1     SEIAKEF.............AKKQAEEEVPSPLELDESAAQKFVKQVIREAFLQDASDIHIEPRQNDVQVRLRIDGALRP   547
NTDB id 1366 NTHI RS01950 WP 011271972.1   VEEQVK..................FYQHQETHFEQEDDEPVIRLLNQIFESALQKNASDIHLETLADQFQVRFRIDGVLQP   162
NTDB id 1355 HI 0298 AAC21962.1            VEEQVK..................FYQHQETHFEQEDDEPVIRLLNQIFESALQKNASDIHLETLADQFQVRFRIDGVLQP   162
NTDB id 1384 A4U84 RS08525 WP 010787006.1  IYEESE..................LAFVEQE.QEQLNLNDPIIQLLDNLFKFCLAQNASDIHIEPRKQKLIIRLRIDGVLHL   157
NTDB id 1468 ASU2 RS05090 WP 014991734.1   LYEETE..................LNYQSPDNLDLLNQNDPIIQILDNLFKFCLKQNASDIHFEPQKEKLQIRLRIDGVLHI   157
NTDB id 88619 AAF13 RS18425 WP 001025173.1 ......................SRTQQTLPVAVQEKHQPKAELLARTLQSALEQRASDIHIEPADNAYRIRLRIDGVLHP   121
NTDB id 1436 BW25113 RS00530 WP 001025145.1 ......................SRTQQTLPVAVQEKHQPKAELLTRTLQSALEQRASDIHIEPADNAYRIRLRIDGVLHP   121
NTDB id 1168 A1552VC RS11070 WP 000957200.1 GAANQGKEISQ..DELANLVKVSDDELQSIEDLSQDDSPVSRFINQVLLDAVRKGASDIHFEPYENQYRIRLRCDGILVE   222
NTDB id 1401 DSB67 RS12665 WP 010643259.1  QEKSGLKEINQ..DELAGLVDIGEDEIENIEDLSQDESPVSRYINQILLDAVRKGASDIHFEPYENMYRVRLRCDGILIE   222
NTDB id 1293 VP RS12240 WP 005479695.1     HEKSGLKEINQ..EELASLVDVGADEIDNIEDLSQDESPVSRYINQILLDAVRKGASDIHFEPYEKMYRVRLRCDGILIE   222
NTDB id 1110 NGFG RS09235 WP 003689817.1   L..LQEL.........GEGQEEEESHTLYIDNEEAEDGPVPRFIHKTLSDALRSGASDIHFEFYEHNARIRFRVDGQLRE   212
NTDB id 1251 GCO85 RS07725 WP 011946523.1  QGLSEYVEDSGDLEGLEISAD.DEDQDIDTATSVTDDAPIVKFVNKILLDAIRQGASDIHFEPYEREYRIRYRQDGILHE   231
NTDB id 1018 ACIAD RS01685 WP 004920473.1  FNFDTE...ELD...LDVEVDPHTTDDDDEDDKLKDEAPIVKYINKLLIDAIRMSASDLHFEPYEKSYRVRYRVDGVLRL   226
NTDB id 1058 ABD1 RS01615 WP 001274986.1   FDFNDE...EFD...LDVNLDGPTAQEDEEEAPQGDEAPIVKYINKLLIDAIRMGASDLHFEPYEKSYRVRYRVDGVLRQ   226
consensus                                                  ** **  *******  ****   !!!*!*!*  *   ***!*!*!!*!
```

logo



```
NTDB id 1028 TT RS08215 WP 011173991.1     YSTLPKGALNAVISVVKIMGGLNIAEKRLPQDGRVRYREG..AIDVDLRLSTLPTVYGEKAVMRLLKKASDIPEIEDLGF   625
NTDB id 1366 NTHI RS01950 WP 011271972.1   QPLISKIFANRIISRLKLLAKLDISENRLPQDGRFQFKTTF.SDILDFRLSTLPTHWGEKIVLRAQQNKPVELSFAELGM   241
NTDB id 1355 HI 0298 AAC21962.1            QPLISKIFANRIISRLKLLAKLDISENRLPQDGRFQFKTTF.SDILDFRLSTLPTHWGEKIVLRAQQNKPVELSFSELGM   241
NTDB id 1384 A4U84 RS08525 WP 010787006.1  YKSLSIQLASRLISRIKLLAKLDISELRQPQDGQFSFTTAL.ADTLDFRVSSLPTIYGEKLVLRLQKNKPTSFDFLQLGF   236
NTDB id 1468 ASU2 RS05090 WP 014991734.1   YKSLSFSLANRIITRLKLLAKLDISETRLPQDGQFNFKTVT.AETLDFRVSSLPTSFGEKIVLRLQKNKPTHFDFLELGF   236
NTDB id 88619 AAF13 RS18425 WP 001025173.1 LPDVSPDAGVALTARLKVLGNLDIAEHRLPQDGQFTVELA..GNAVSFRIATLPCRGGEKVVLRLLQQVGQALDVNTLGM   199
NTDB id 1436 BW25113 RS00530 WP 001025145.1 LPDVSPDAGVALTARLKVLGNLDIAEHRLPQDGQFTVELA..GNAVSFRIATLPCRGGEKVVLRLLQQVGQALDVNTLGM   199
NTDB id 1168 A1552VC RS11070 WP 000957200.1 TQQPASHLSRRLAARIKILSKLDIAERRLPQDGRIKLRLSR.DTAIDMRVSTLPTLWGEKIVLRLLDSSAANLDIDKLGY   301
NTDB id 1401 DSB67 RS12665 WP 010643259.1  IQQPPSHLSRRLSARIKILSKLDIAERRLPQDGRIKLKLNQ.DTAIDMRVSTLPTLFGEKIVLRLLDSSSAALDINKLGY   301
NTDB id 1293 VP RS12240 WP 005479695.1     TQQPPNHLSRRLSARIKILSKLDIAERRLPQDGRIKLKLNQ.DTAIDMRVSTLPTLFGEKIVLRLLDSSSASLDIDKLGY   301
NTDB id 1110 NGFG RS09235 WP 003689817.1   VVQPPIAVRGQLASRIKVMSRLDISEKRIPQDGRMQLTFQKGGKPVDFRVSTLPTLFGEKVVMRILNSDAASLNIDQLGF   292
NTDB id 1251 GCO85 RS07725 WP 011946523.1  VATPPASLSSRITARIKVMSNLDISERRIPQDGGFKMKISK.SRAIDFRVSTCPTSAGEKVVMRVLDSGAAKLGIEALGF   310
NTDB id 1018 ACIAD RS01685 WP 004920473.1  IATPPLQLATRLASRLKVMSQMDISEKRVPQDGRIKLKMSK.SKTIDFRVNSLPTLFGEKIVLRILDPASAMLGIDALGY   305
NTDB id 1058 ABD1 RS01615 WP 001274986.1   IANPPLQLANRLASRLKVMSQMDISEKRVPQDGRIKLKLSK.SKAIDFRVNSLPTLFGEKLVLRILDPSSAMLGIDALGY   305
consensus                                    **  **  ***!** ***!*!*!*!!!!*  ***      ***!****!***!!!*!*!**      ***  !!*
```

logo



```
NTDB id 1028 TT RS08215 WP 011173991.1     APGVFERFKEVISKPYGIFLITGPTGSGKSFTTFSILKRIATPDKNTQTIEDPVEYEIPGINQTQVNPQAGLTFARALRA   705
NTDB id 1366 NTHI RS01950 WP 011271972.1   TENQQQAFQRSLSQPQGLILVTGPTGSGKSISLYTALQWLNTPDKHIMTAEDPIEIELDGIIQSQINPQIGLDFSRLLRA   321
NTDB id 1355 HI 0298 AAC21962.1            TENQQQAFQRVLSQPQGLILVTGPTGSGKSISLYTALQWLNTPDKHIMTAEDPIEIELDGIIQSQINPQIGLDFNRLLRT   321
NTDB id 1384 A4U84 RS08525 WP 010787006.1  NPQQQTTLLNALKQPQGLILVTGPTGSGKSITLYSALNYLNQMDKHILTAEDPVEIEIDGLIQTQVNRSIQLDFSQLLRT   316
NTDB id 1468 ASU2 RS05090 WP 014991734.1   SPEQKQLLLTALHQPQGLILVTGPTGSGKSITLYSALNYLNNSERHILTAEDPIEIEIEGIIQTQVNRAIQLDFSQLLRT   316
NTDB id 88619 AAF13 RS18425 WP 001025173.1 QPLQLADFAHALQQPQGLVLVTGPTGSGKTVTLYSALQTLNTADINICSVEDPVEIPIAGLNQTQIHPRAGLTFQGVLRA   279
NTDB id 1436 BW25113 RS00530 WP 001025145.1 QPLQLADFAHALQQPQGLVLVTGPTGSGKTVTLYSALQKLNTADINICSVEDPVEIPIAGLNQTQIHPRAGLTFQGVLRA   279
NTDB id 1168 A1552VC RS11070 WP 000957200.1 NPQQKQLYLNALKRPQGMILMTGPTGSGKTVSLYTGLRILNTSQINISTAEDPVEINLSGINQVQVQPKIGFGFAEALRS   381
NTDB id 1401 DSB67 RS12665 WP 010643259.1  SDSQKQLYLDALRRPQGMILMTGPTGSGKTVSLYTGLSILNKPEINISTAEDPVEIYLPGINQVQVQPKIGFGFAEALRS   381
NTDB id 1293 VP RS12240 WP 005479695.1     SEQQKQLYLEALRRPQGMILMTGPTGSGKTVSLYTGLNILNKPEINISTAEDPVEINLSGINQVQVQPKIGFGFAEALRS   381
NTDB id 1110 NGFG RS09235 WP 003689817.1   EPFQKKLLLEAIHRPYGMVLVTGPTGSGKTVSLYTCLNILNTESVNIATAEDPAEINLPGINQVNVNDKQGLTFAAALKS   372
NTDB id 1251 GCO85 RS07725 WP 011946523.1  NPVQRTNFLKAIQRPQGMILVTGPTGSGKTVTLYTALNILNTIEVNISTAEDPVEIKVPGINQVNINPKAGLTFSGALRS   390
NTDB id 1018 ACIAD RS01685 WP 004920473.1  EPEQKALFMEALNKPQGMLLITGPTGSGKTVSLYTGLNILNTEHANISTAEDPVEINLEGVNQVNVNPKVGLTFAAALRS   385
NTDB id 1058 ABD1 RS01615 WP 001274986.1   EEDQKALFMEALDKPQGMLLITGPTGSGKTVSLYTGLNILNTESSNISTAEDPVEINLEGINQVNVNPKVGLTFAAALKS   385
consensus                                   * **  **  **  *!*!**!*!!!!!!!!!********!*  *** * **  **!!!*!* * !**!  ********  !  *!**
```

logo



```
NTDB id 1028 TT RS08215 WP 011173991.1   FLRQDPDIIMVGEIRDSETAKIATEAALTGHLVIATLHTNDAAQAITRLDEMGVEPFNISAALIGVLSQRLVRRVCEHCK   785
NTDB id 1366 NTHI RS01950 WP 011271972.1 FLRQDPDIIMLGEIRDEESARIALRAAQTGHLVLSTLHTNDAISAISRLQQLGIQQHEIENSLLLVIAQRLVRKICPKCG   401
NTDB id 1355 HI 0298 AAC21962.1          FLRQDPDIIMLGEIRDEESAMIALRAAQTGHLVLSTLHTNDAISAISRLQQLGIQQYEIKNSLLLVIAQRLVRKLCSKCG   401
NTDB id 1384 A4U84 RS08525 WP 010787006.1 FLRQDPDIIMLGEIRDEESAKMALRASQTGHLVLSTLHTNDALSAVERLLQLGIQEYEIQNSLLLVIAQRLVRKLCKKCR   396
NTDB id 1468 ASU2 RS05090 WP 014991734.1 FLRQDPDIIMLGEIRDQESAEIALRAAQTGHLVLSTLHTNDAPSAIERLLQLGIKEYEIKNSLQLIIAQRLLRKRCPQCG   396
NTDB id 88619 AAF13 RS18425 WP 001025173.1 LLRQDPDVIMIGEIRDGETAEIAIKAAQTGHLVLSTLHTNSTCETLVRLQQMGVARWMLSSALTLVIAQRLVRKLCPHCR   359
NTDB id 1436 BW25113 RS00530 WP 001025145.1 LLRQDPDVIMIGEIRDGETAEIAIKAAQTGHLVLSTLHTNSTCETLVRLQQMGVARWMLSSALTLVIAQRLVRKLCPHCR   359
NTDB id 1168 A1552VC RS11070 WP 000957200.1 FLRQDPDVVMVGEIRDLETAEIAVKAAQTGHLVLSTLHTNSAAETVIRLANMGVEPFNLASSLSLIIAQRLARRLCKHCK   461
NTDB id 1401 DSB67 RS12665 WP 010643259.1 FLRQDPDVVMVGEIRDLDTAEIAIKASQTGHLVLSTLHTNSAAETVIRLSNMGVESFNLASSLSLIIAQRLARKLCPYCR   461
NTDB id 1293 VP RS12240 WP 005479695.1   FLRQDPDVVMVGEIRDLDTAEIAIKASQTGHLVLSTLHTNSAAETIIRLSNMGVESFNLASSLSLIIAQRLARKLCPYCK   461
NTDB id 1110 NGFG RS09235 WP 003689817.1 FLRQDPDIIMVGEIRDLETADIAIKAAQTGHMVFSTLHTNNAPATLSRMLNMGVAPFNIASSVSLIMAQRLLRRLCSSCK   452
NTDB id 1251 GCO85 RS07725 WP 011946523.1 FLRQDPDIIMVGEIRDLETAEIAIKAAQTGHLVLSTLHTNSAAETLNRLVNMGIPTFNIASSVTLIIAQRLARKLCNQCK   470
NTDB id 1018 ACIAD RS01685 WP 004920473.1 FLRQDPDIIMVGEIRDLETAEIAIKAAQTGHLVMSTLHTNNAAETLTRLRNMGVASFNIATSVNLVIAQRLARRLCSQCK   465
NTDB id 1058 ABD1 RS01615 WP 001274986.1 FLRQDPDIIMVGEIRDLETAEIAIKAAQTGHMVMSTLHTNSAPETLTRLRNMGVPSFNIATSVNLVIAQRLARRLCSQCK   465
consensus                                *!!!!!!**!*!!!!!  **!**!**!**!!!*!**!!!!!  *  ***  !*  **!*  ***  ***  ****!!!*!**!  !*
```

logo



```
NTDB id 1028 TT RS08215 WP 011173991.1   VEV.KPDPETLRRLGLSEAEIQ..GARLYKGMGC..ERCGGTGYKGRYAIHELLVVDDEIRHAIVAGKSATEIKEIARRK   860
NTDB id 1366 NTHI RS01950 WP 011271972.1 GN.............................LINSCDCH.QGYRGRIGVYQFLHWQQN.............GY.....QT   433
NTDB id 1355 HI 0298 AAC21962.1          GN.............................LANSCDCH.QGYRGRIGVYQFLHWQQN.............DY.....QT   433
NTDB id 1384 A4U84 RS08525 WP 010787006.1 GV.............................GC..DECY.QGYRGRIGVYQCLSRTAK.............KFDKQTAYL   431
NTDB id 1468 ASU2 RS05090 WP 014991734.1 GK.............................GC..DNCY.HGYKGRTGIYQLLAKQGK.............FFEKSTAYL   431
NTDB id 88619 AAF13 RS18425 WP 001025173.1 QQQGEPIHIPV........NVWPSPLPHWQAPGC..VHCY.HGFYGRTALFEVLPITPVIRQLISANTDVESLETHARQA   428
NTDB id 1436 BW25113 RS00530 WP 001025145.1 RQQGEPIHIPD........NVWPSPLPHWQAPGC..VHCY.HGFYGRTALFEVLPITPVIRQLISANTDVESLETHARQA   428
NTDB id 1168 A1552VC RS11070 WP 000957200.1 IAV.RPSALLQSQFAFQPNEIL....YEANAAGC..NECT.GGYSGRVGIYEVMAFNTELAEAIMQRASIHQIERLAKAN   533
NTDB id 1401 DSB67 RS12665 WP 010643259.1 QPQ.EPNSQLQH.IGIANTEQI....FQANPDGC..NECT.HGYSGRTGIYEVMKFDESLSEALIKGASVHELEKLAIAN   532
NTDB id 1293 VP RS12240 WP 005479695.1   QPQ.EHTVQLQH.LGIQTTDNI....FRANPDGC..NECT.HGYSGRTGIYEVMRFDESLSEALIKGASVHELEKLAIAN   532
NTDB id 1110 NGFG RS09235 WP 003689817.1 QEVERPSASALKEVGFTDEDLAK.DWKLYRAVGC..DRCRGQGYKGRAGVYEVMPISEEMQRVIMNNGTEVGILDVAYKE   529
NTDB id 1251 GCO85 RS07725 WP 011946523.1 AVRDDFTNQGLIELGFKEADLV..NLKLYKAVGC..EQCT.SGYRGRVGLFEVLPMTKELGQLIMSGGNSLDILKLAQSE   545
NTDB id 1018 ACIAD RS01685 WP 004920473.1 RPI.QVPERSLLEMGFTPEDLAQPEFQIFEPVGC..HDCR.EGYKGRVGIYEVMKITPEISKIIMEDGNALEIAATAETL   541
NTDB id 1058 ABD1 RS01615 WP 001274986.1 IPA.DIPKQSLLEMGFTEQDLAHPDFRVFQPVGC..LECR.EGYKGRVGIYEVMKVTPEISKIIMEDGNALEIAAASEKL   541
consensus                                    *    **          **   *!   !**!! ******     *   **         *   *
```

logo



```
NTDB id 1028 TT RS08215 WP 011173991.1   GMKTLREDGLYKALQGITTLEEVLARTIE....   889
NTDB id 1366 NTHI RS01950 WP 011271972.1 DFENLRESGLEKVSQGITDEKEIERVLGKNS..   464
NTDB id 1355 HI 0298 AAC21962.1          DFKNLRASGLEKVSQGITDEKEIERVLGKNL..   464
NTDB id 1384 A4U84 RS08525 WP 010787006.1 DFSSLRESAKQKIEQQLTNETEVDRVLGYE...   461
NTDB id 1468 ASU2 RS05090 WP 014991734.1 DYDNLRASAEQKLAANITTVDEVKRVLGDG...   461
NTDB id 88619 AAF13 RS18425 WP 001025173.1 GMCTLFENGCLAVEQGLTTFEELIRVLGMPHGE   461
NTDB id 1436 BW25113 RS00530 WP 001025145.1 GMRTLFENGCLAVEQGLTTFEELIRVLGMPHGE   461
NTDB id 1168 A1552VC RS11070 WP 000957200.1 GMQTLQESGLEKLREGITSFAELQRVLYF....   562
NTDB id 1401 DSB67 RS12665 WP 010643259.1 GMQTLQMSGIEKLKQGITSFRELQRVLYF....   561
NTDB id 1293 VP RS12240 WP 005479695.1   GMSTLQMSGIEKLKQGITSFSELQRVLYF....   561
NTDB id 1110 NGFG RS09235 WP 003689817.1 GMVDLRRAGILKIMQGITSLEEVTANTND....   558
NTDB id 1251 GCO85 RS07725 WP 011946523.1 GMLTIFQSGIEKVKEGITTIEEVNRVTVD....   574
NTDB id 1018 ACIAD RS01685 WP 004920473.1 GFNNLRRSGLKKVMQGVTSLQEINRVTSE....   570
NTDB id 1058 ABD1 RS01615 WP 001274986.1 GFNNLRRSGLKKVMQGVTSLQEVNRVTSE....   570
consensus                                ** ***  ***  **  ***!*   !*  ***
```

X non conserved

X similar

X $\geq$ 50% conserved