logo



```
NTDB id 1381 A4U84 RS02010 WP 021113424.1    ..................................................................................  0
NTDB id 1347 HI 0435 AAC22094.1              ..................................................................................  0
NTDB id 1373 NTHI RS02645 WP 011272046.1     ..................................................................................  0
NTDB id 1433 BW25113 RS17570 WP 000815987.1  ..................................................................................  0
NTDB id 1186 GTF74 RS01320 WP 000788426.1    ..MKNGLKT..YVAQTWLTLWVGLALCASSMVFSAESATANQLENIDFRVNKEKAAVLIVELASPSAVVDVQKVQEGLSI  76
NTDB id 1175 A1552VC RS12105 WP 000788426.1  ..MKNGLKT..YVAQTWLTLWVGLALCASSMVFSAESATANQLENIDFRVNKEKAAVLIVELASPSAVVDVQKVQEGLSI  76
NTDB id 1408 DSB67 RS13980 WP 010643500.1    MKMRHGLTLTPRKLTGLFSLWFSLLLAP...FVAAEEVQSNSLKSIDFRTNKDKDAVIVVELVSPAAIVDIKRVQEGLSI  77
consensus
```

logo



```
NTDB id 1381 A4U84 RS02010 WP 021113424.1    ..........................................MRYLFLLFFAT...........FPVLA  16
NTDB id 1347 HI 0435 AAC22094.1              ..........................................MKKYFLKCGYFLVCFCLPLIVFA......NPKTD  28
NTDB id 1373 NTHI RS02645 WP 011272046.1     ..........................................MKKYFLKCGYFLVCFCLPLIVFA......NPKTD  28
NTDB id 1433 BW25113 RS17570 WP 000815987.1  ..................................................MKQWIAALLL.MLI.......PGVQAAK  20
NTDB id 1186 GTF74 RS01320 WP 000788426.1    ELLKTDVADDKLYLLDVKDFSTPVESVEVFRKEPSTQLVVTVDGEFQHDYTLKGKYLEVVIS.KLKADEKPKPKSVLEKE  155
NTDB id 1175 A1552VC RS12105 WP 000788426.1  ELLKTDVADDKLYLLDVKDFSTPVESVEVFRKEPSTQLVVTVDGEFQHDYTLKGKYLEVVIS.KLKADEKPKPKSVLEKE  155
NTDB id 1408 DSB67 RS13980 WP 010643500.1    DLLNTSVKDDQLYLLDVKDFSTVVESVEVFRDTSTTRLVAYIDEDYSHDYRLTGRYLEVKVG.KLKANEKAPDKSILDKE  156
consensus                                                                  * **  ***  ***    *          *    *
```

logo



```
NTDB id 1381 A4U84 RS02010 WP 021113424.1    NQQISLSIRNAPTAEIISYLAEETGKNITISDEIKDTKNFRVEKSHFDEILNSLIKTHQLNLKKENGIYYIHQAQEHKQ.  95
NTDB id 1347 HI 0435 AAC22094.1              NERFFIRLSQAPLAQTLEQLAFQQDVNLVIGDILENKISLKLNNIDMPRLLQIIAKSKHLTLNKDDGIYYLNGSQSGKG.  107
NTDB id 1373 NTHI RS02645 WP 011272046.1     NECFFIRLSQAPLAQTLEQLAFQQDVNLVMGERLEGNISLKLNNIDMPRLLKIIAKSKHLTLNKDDGVYYLNGSQSGKG.  107
NTDB id 1433 BW25113 RS17570 WP 000815987.1  PQKVTLMVDDVPVAQVLQALAEQEKLNLVVSPDVSGTVSLHLTDVPWKQALQTVVKSAGLITRQEGNILSVHSIAWQNNN  100
NTDB id 1186 GTF74 RS01320 WP 000788426.1    GKLISINFQDIPVRNVLQLIADYNGFNLVVSDSVVGNLTLRLDGVPWQQVLDIILQVKGLDKRVDGNVILIAPKEELDLR  235
NTDB id 1175 A1552VC RS12105 WP 000788426.1  GKLISINFQDIPVRNVLQLIADYNGFNLVVSDSVVGNLTLRLDGVPWQQVLDIILQVKGLDKRVDGNVILIAPKEELDLR  235
NTDB id 1408 DSB67 RS13980 WP 010643500.1    GKLISINFQDIPVRNVLQLIADYNQFNLVVSDSVEGNLTLRLDGVPWQQVLDIILQVKGLDKRVDGNVILVAPKDELDLR  236
consensus                                       *** * **!****** *!* *  !***** * ******** *** **! *******!  * ***** *    *
```

logo



```
NTDB id 1381 A4U84 RS02010 WP 021113424.1    .....HTTAQLVNALPKLITKTIKLHYSKASEVIESLT.KGQGNLLSESGYLHFDDRSNSIIVKDSAASVKNFTQLIESL  169
NTDB id 1347 HI 0435 AAC22094.1              .....QVAGNLTTNEPHLVSHTVKLHFAKASELMKSLT.TGSGSLLSPAGSITFDDRSNLLVIQDEPRSVQNIKKLIAEM  181
NTDB id 1373 NTHI RS02645 WP 011272046.1     .....QVAGNLTTNEPHLVSHTVKLHFAKASELMKSLT.TGSGSLLSSAGSITFDDRSNLLVIQDEPRFVQNIKKLIAEM  181
NTDB id 1433 BW25113 RS17570 WP 000815987.1  IARQEAEQARAQ.ANLPLENRSITLQYADAGELA.....KAGEKLLSAKGSMTVDKRTNRLLLRDNKTALSALEQWVAQM  174
NTDB id 1186 GTF74 RS01320 WP 000788426.1    E.KQALEKARLAEELGDLKSEIIKINFAKASDIAAMIGGEGNVNMLSERGSISIDERTNSLLIRELPDNIAVIREIIESL  314
NTDB id 1175 A1552VC RS12105 WP 000788426.1  E.KQALEKARLAEELGDLKSEIIKINFAKASDIAAMIGGEGNVNMLSERGSISIDERTNSLLIRELPDNIAVIREIIESL  314
NTDB id 1408 DSB67 RS13980 WP 010643500.1    E.KQQLEKQKLEKEIGELSSEIIKVNFAKASDIAEMINGEGNISMLSDRGSMTIDERTNSLLIRELPENIEVIREIIESL  315
consensus                                     **   *  ***    *   !  * ********!****   *    **   *!!**!****!*!*!****** *   *   **  *****
```

logo



```
NTDB id 1381 A4U84 RS02010 WP 021113424.1    DKPTEQIAIEARIVTISSEHLQQLGVRWGLFSPNENHYKLAGNLE.................GNGLTT..NNLNVNF..P   228
NTDB id 1347 HI 0435 AAC22094.1              DKPIEQIAIEARIVTITDESLKELGVRWGIFNPTENARRVAGSLT.................GNSFENIADNLNVNFATT   244
NTDB id 1373 NTHI RS02645 WP 011272046.1     DKPIEQIAIEARIVTITDESLKELGVRWGIFNPTENARRVAGSLT.................GNSFENIADNLNVNFATT   244
NTDB id 1433 BW25113 RS17570 WP 000815987.1  DLPVGQVELSAHIVTINEKSLRELGVKWTLADAQHAG.GVGQVTT.................LGSDL......S.....V   225
NTDB id 1186 GTF74 RS01320 WP 000788426.1    DIPVKQVQIEARIVTVKEGNLEELGVRWGVMSTNGSH.SVGGSIESNLWQKGLLAD........DEFPVDEFLNVNLAST   385
NTDB id 1175 A1552VC RS12105 WP 000788426.1  DIPVKQVQIEARIVTVKEGNLEELGVRWGVMSTNGSH.SVGGSIESNLWQKGLLAD........DEFPVDEFLNVNLAST   385
NTDB id 1408 DSB67 RS13980 WP 010643500.1    DIPVKQVQIEARIVTINEGNMDELGVRWGFTSINGSH.TVGGSIENNLATIGLYDGGGEGDDGGSSVGIDDFLNVNLAAT   394
consensus                                    !*!*  !* **!*!!!* *  * *!!!*!** * *  *  ******          * *   * * **** ***
```

logo



```
NTDB id 1381 A4U84 RS02010 WP 021113424.1    VNPSASVALQIAAI.NSRVLDLELTALESENNIEIIASPRLLTTDKKTASIKQGTEIPYAMYSKKEEITDIEFREAVLGL   307
NTDB id 1347 HI 0435 AAC22094.1              TTPAGSIALQVAKI.NGRLLDLELSALERENNVEIIASPRLLTTNKKSASIKQGTEIPYIVSNTRNDTQSVEFREAVLGL   323
NTDB id 1373 NTHI RS02645 WP 011272046.1     TTPAGSIALQVAKI.NGRLLDLELSALERENNVEIIASPRLLTTNKKSASIKQGTEIPYIVSNTRNDTQSVEFREAVLGL   323
NTDB id 1433 BW25113 RS17570 WP 000815987.1  ATATIHVGFNIGRI.NGRLLDLELSALEQKQQLDIIASPRLLASHLQPASIKQGSEIPYQVSSGESGATSVEFKEAVLGM   304
NTDB id 1186 GTF74 RS01320 WP 000788426.1    SANASSIAFQVAKLGSGTLLDLELSALQNESKAEIISSPRLITTNKQPAYIEQGTEIPYLES.SSSGASTVAFKKAVLSL   464
NTDB id 1175 A1552VC RS12105 WP 000788426.1  SANASSIAFQVAKLGSGTLLDLELSALQNESKAEIISSPRLITTNKQPAYIEQGTEIPYLES.SSSGASTVAFKKAVLSL   464
NTDB id 1408 DSB67 RS13980 WP 010643500.1    SPNATSIAFQVAKLGSDTLLDLELSALQQESKAEIISSPRLITTNKKPAYIEQGTEIPYLES.SSSGATSVTFKKAVLSL   473
consensus                                    *  **********  ****!!!!!*!!*******!!*!!!!*******!*!*!!*!!!!*** * *******!**!!!**
```

logo



```
NTDB id 1381 A4U84 RS02010 WP 021113424.1    EVTPHISKQNQILLDLALSQNSPNNQIN...NTMVTIDKQEIKTQVLAKHGETIVLGGIFQHLIAKGEDKVPLLGSIPVI   384
NTDB id 1347 HI 0435 AAC22094.1              EVTPHISKDNNILLDLLVSQNSPGSRVAYGQNEVVSIDKQEINTQVFAKDGETIVLGGVFHDTITKSEDKVPLLGDIPVI   403
NTDB id 1373 NTHI RS02645 WP 011272046.1     EVTPHISKDNNILLDLLVSQNSPGSRVAYGQNEVVSIDKQEINTQVFAKDGETIVLGGVFHDTITKSEDKVPLLGDIPVI   403
NTDB id 1433 BW25113 RS17570 WP 000815987.1  EVTPTVLQKGRIRLKLHISQNVPGQVLQQADGEVLAIDKQEIETQVEVKSGETLALGGIFTRKNKSGQDSVPLLGDIPWF   384
NTDB id 1186 GTF74 RS01320 WP 000788426.1    KVTPQITPDNRLVLDLSVTQDRRGETVKTGTGEAVSIDTQRIGTQVLVNNGETVVLGGIFQHSINNSVDKVPLLGDLPVL   544
NTDB id 1175 A1552VC RS12105 WP 000788426.1  KVTPQITPDNRLVLDLSVTQDRRGETVKTGTGEAVSIDTQRIGTQVLVNNGETVVLGGIFQHSINNSVDKVPLLGDLPVL   544
NTDB id 1408 DSB67 RS13980 WP 010643500.1    KVTPQITPDNRLVLDLSVTQDRPGQVVKTGTGEAVAIDTQRIGTQVLVNNGETVVLGGIFQHSITNSVDKVPLLGDLPLL   553
consensus                                    *!!!  **  *****!*!  **!* **   *  * *****!!*!*!  !!!*** !!!**!!!*!****  * !*!!!!!**!**
```

logo



```
NTDB id 1381 A4U84 RS02010 WP 021113424.1    KRLFSQSQDKISKRELVIFVTPYIVKSEKIG.AEKQK.....   420
NTDB id 1347 HI 0435 AAC22094.1              KRLFSKESERHQKRELVIFVTPHILKAGETLEALKQKSEGKK   445
NTDB id 1373 NTHI RS02645 WP 011272046.1     KRLFSKESERHQKRELVIFVTPHILKAGETLEALKQKSAGKK   445
NTDB id 1433 BW25113 RS17570 WP 000815987.1  GQLFRHDGKEDERRELVVFITPRLVSSE.............   412
NTDB id 1186 GTF74 RS01320 WP 000788426.1    GALFRRTYEQMGKSELLIFVTPKVVIQ..............   571
NTDB id 1175 A1552VC RS12105 WP 000788426.1  GALFRRTYEQMGKSELLIFVTPKVVIQ..............   571
NTDB id 1408 DSB67 RS13980 WP 010643500.1    GALFRRSYENVGKSELLIFVTPKVVIQ..............   580
consensus                                    *  !!***  * *  **!!**!*!!***
```

X non conserved

X similar

X ≥ 50% conserved