logo 

```
NTDB id 124 BSU 16930 NP 389575.2              MEFPKKAEIIAVGSELLLGQIANTNAQFISKQLAEIGVNVFYHTAVGDNPERLKQVIRIAEERSDFIIFSGGLGPTKDDL  80
NTDB id 185607 A8P51 RS10910 WP 003641503.1    ....MQAEIIAVGTEILLGQITNTNSTYIARGLAELGIDSYYQTVVGDNRQRLSTVIEIAAQRNDLVILTGGLGPTKDDL  76
NTDB id 462 GPW51 RS00385 WP 012774894.1       ....MKAELIAVGTEILTGQIINTNAQFLSEKCAELGIDVYFHTAVGDNEGRLLSTLEVASKRSNMVVLCGGLGPTEDDL  76
NTDB id 412 SMU RS09535 WP 002262393.1         ....MKSEIIAVGTEILTGQIVNTNSQFLSEKFAELGIDVYFQTAVGDNEERLLSVLKIAKERSDLIVLCGGLGPTEDDL  76
NTDB id 170 SP RS09755 WP 000642718.1          ....MKAEIIAVGTEILTGQIVNTNAQFLSEKLAEIGVDVYFQTAVGDNEVRLLSLLEIASQRSSLVILTGGLGPTEDDL  76
NTDB id 280 KZH43 RS08670 WP 000642700.1       ....MKAEIIAVGTEILTGQIVNTNAQFLSEKLAEIGVDVYFQTAVGDNEVRLLSLLEIASQRSSLVILTGGLGATEDDL  76
NTDB id 205 SPR RS08830 WP 000642700.1         ....MKAEIIAVGTEILTGQIVNTNAQFLSEKLAEIGVDVYFQTAVGDNEVRLLSLLEIASQRSSLVILTGGLGATEDDL  76
NTDB id 239 SPD RS09270 WP 000642701.1         ....MKAEIIAVGTEILTGQIVNTNAQFLSEKLAEIGVDVYFQTAVGDNEVRLLSLLEIASQRSSLVILTGGLGATEDDL  76
NTDB id 538 SMSK321 RS11060 WP 000642686.1     ....MKAEIIAVGTEILTGQIVNTNAQFLSEKLAEIGVDVYFQTAVGDNEARLLSLLEIASQRSSLVILTGGLGPTEDDL  76
NTDB id 510 SM12261 RS08320 WP 000642690.1     ....MKAEIIAVGTEILTGQIVNTNAQFLSEKLAEIGVDVYFQTAVGDNEARLLSLLEIASQRSSLVILTGGLGPTEDDL  76
consensus                                       ***!*!!!!*!*!*!!!*!!!*********!!*!******!*!!!!* !!*******!**!*******!!!!*!*!!!
```

logo 

```
NTDB id 124 BSU 16930 NP 389575.2              TKETIANTLGRPLVLNDEAFQSIEDYFKRT.KRTMSPNNRKQALVIEGSDVLANHFGMAPGMLTEHE.SRYYMLLPGPPS  158
NTDB id 185607 A8P51 RS10910 WP 003641503.1    TKQTLAHYLNVALVEDQAAMQKITAWFATND.KVMTANNRLQALYPAGAQPLTNHNGMAVGAFYQSENSADFLLLPGPPR  155
NTDB id 462 GPW51 RS00385 WP 012774894.1       TKQTLATFLGRNLVFDELAMAKLDRFFASRPGRVRTPNNERQAQIVEGSQALQNPAGLAVGGMIEQD.GVTYIVLPGPPS  155
NTDB id 412 SMU RS09535 WP 002262393.1         TKQTLAKFLKRELVFDKTAQERLDEFFASRPTSMRTPNNECQAQIIAGSQPLSNKTGLAVGGLLEAD.GVTYVVLPGPPS  155
NTDB id 170 SP RS09755 WP 000642718.1          TKQTLAKFLGKALVFDPQAQEKLDIFFTLRPDYARTPNNERQAQIVEGAIPLPNETGLAVGGKLEVD.GVTYVVLPGPPS  155
NTDB id 280 KZH43 RS08670 WP 000642700.1       TKQTLAKFLGKALVFDPQAQEKLDIFFALRPDYARTPNNERQAQIVEGAIPLPNETGLAVGGKLEVD.GVTYVVLPGPPS  155
NTDB id 205 SPR RS08830 WP 000642700.1         TKQTLAKFLGKALVFDPQAQEKLDIFFALRPDYARTPNNERQAQIVEGAIPLPNETGLAVGGKLEVD.GVTYVVLPGPPS  155
NTDB id 239 SPD RS09270 WP 000642701.1         TKQTLAKFLGKALVFDPQAQEKLDIFFALRPDYARTPNNERQVQIVEGAIPLPNETGLAVGGKLEVD.GVTYVVLPGPPS  155
NTDB id 538 SMSK321 RS11060 WP 000642686.1     TKQTLAKFLGKELVFDPQAQEKLDVFFAQRPDYARTPNNERQAQIVEGATPLPNETGLAVGGILEVD.GVTYVVLPGPPS  155
NTDB id 510 SM12261 RS08320 WP 000642690.1     TKQTLAKFLGKELVFDPQAQEKLDVFFAQRPDYARTPNNERQAQLVEGAIPLPNETGLAVGGILEVD.GVTYVVLPGPPS  155
consensus                                       !!*!*!**!***!!****!******!!* ********!!**!*****!***!*!**!*!*!****** ******!!!!!*
```

logo 

```
NTDB id 124 BSU 16930 NP 389575.2              ELRPMFENEAKPLLLKKMGSNEKIVSTVLRFFGIGESQLEADLEDIIDAQTNPTIAPLAADGEVTLRLTAKHADEKETER  238
NTDB id 185607 A8P51 RS10910 WP 003641503.1    ELAVMFDSEAKPKLAAAYGEQAQIYSRVMRFYGISESELATRLHPLIDEQQAVTIAPYAKTNEVTLRLSAQAMTETAARG  235
NTDB id 462 GPW51 RS00385 WP 012774894.1       ELKAMFSESLLPLLSQ...SQQQLYSRVLRFFGIGESQLVTVLADVIDKQTDPTLAPYAKVGEVTLRLSTKATSQEEANL  232
NTDB id 412 SMU RS09535 WP 002262393.1         ELKPMVNKELLPYLSK...TSEKLYSRVLRFFGIGESHLVTLLHDLIAEQTDPTIAPYAKTGEVTIRLSTKAHRQKEADS  232
NTDB id 170 SP RS09755 WP 000642718.1          ELKPMVLNQLLPKLM....TGSKLYSRVLRFFGIGESQLVTILADLIDNQIDPTLAPYAKTGEVTLRLSTKASSQEEANQ  231
NTDB id 280 KZH43 RS08670 WP 000642700.1       ELKPMVLNQLLPKLM....TGSKLYSRVLRFFGIGESQLVTILADLIDNQIDPTLAPYAKTGEVTLRLSTKASSQEEANQ  231
NTDB id 205 SPR RS08830 WP 000642700.1         ELKPMVLNQLLPKLM....TGSKLYSRVLRFFGIGESQLVTILADLIDNQIDPTLAPYAKTGEVTLRLSTKASSQEEANQ  231
NTDB id 239 SPD RS09270 WP 000642701.1         ELKPMVLNQLLPKLM....TGSKLYSRVLRFFGIGESQLVTILADLIDNQIDPTLAPYAKTGEVTLRLSTKASSQEEANQ  231
NTDB id 538 SMSK321 RS11060 WP 000642686.1     ELKPMVLNQLLPKLM....TGSKLYSRVLRFFGIGESQLVTILSDLIDNQTDPTLAPYAKTGEVTLRLSTKASSQEEANQ  231
NTDB id 510 SM12261 RS08320 WP 000642690.1     ELKPMVLNQLLPKLM....TGSKLHSRVLRFFGIGESQLVTILSDLIDNQTDPTLAPYAKTGEVTLRLSTKASSQEEANQ  231
consensus                                       !!**!******!*!*    ******!*!*!!*!!*!!*!***!***!**!***!*!!*!***!!!*!!************
```

logo



```
NTDB id 124 BSU 16930 NP 389575.2                LLKETEAVILE.......RVGEFFYGYDD.TSLVKELSIACKEKGITISAAESFTGGLFSEWLTDHSGASKLFAGGVVCY   310
NTDB id 185607 A8P51 RS10910 WP 003641503.1      MIDKVDHQIKA.......TIGPVFYGYGDDNSLVTTVINQMIAAKLSITAAESLTAGLFQSTIGSVSGVSAIFPGGFVTY   308
NTDB id 462 GPW51 RS00385 WP 012774894.1         RLNQLEEDILQHD.....KLADYFYAYGEDNSLVKTVATRLAEKRQTIAIVEQGTGGLLQAELSLALADQPYFSGGKVVG   307
NTDB id 412 SMU RS09535 WP 002262393.1           KLDKLEKKITTID.....NLADYFYGYGEBNSLPQVVFDLLKEKGKTITAAESLTAGLFQARLADFAGASDIFKGGFITY   307
NTDB id 170 SP RS09755 WP 000642718.1            ALDILENQILDCQTFEGISLRDFCYGYGEETSLASIVVEELKRQGKTIAAAESLTAGLFQATVANFSGVSSIFKGGFVTY   311
NTDB id 280 KZH43 RS08670 WP 000642700.1         ALDILENQILDCQTFEGISLRDFCYGYGEETSLASIVVEELKRQGKTIAAAESLTAGLFQATVANFSGVSSIFEGGFVTY   311
NTDB id 205 SPR RS08830 WP 000642700.1           ALDILENQILDCQTFEGISLRDFCYGYGEETSLASIVVEELKRQGKTIAAAESLTAGLFQATVANFSGVSSIFEGGFVTY   311
NTDB id 239 SPD RS09270 WP 000642701.1           ALDILENQILDCQTFEGISLRDFCYGYGEETSLASIVVEELKRQGKTIAAAESLTAGLFQATVANFSGVSSIFEGGFVTY   311
NTDB id 538 SMSK321 RS11060 WP 000642686.1       VLDILENQILGRQTFEGLSLRDLCYGYGEEASLASIVVEELKKQGKTITAAESLTAGLFQATVADFSGASSIFKGGFVTY   311
NTDB id 510 SM12261 RS08320 WP 000642690.1       VLDILENQILGRQTFEGLSLRDLCYGYGEETSLASIVVEELKRQGKTITSAESLTAGLFQARVADFSGASSIFKGGFVTY   311
consensus                                         ********!** ************!*!****!!***************!***!**!*!!****** ********! !!****
```

logo



```
NTDB id 124 BSU 16930 NP 389575.2                TNDVKQNVLGVKKETLDRFGAVSKECASELAKGVQKLTGSDIGISFTGVAGPDAQEGHEPGHVFIGISANGK.EEVHEFH   389
NTDB id 185607 A8P51 RS10910 WP 003641503.1      ANEAKHQLVNVPQAIIDAEGVVSEATAKAMASGAKQQLNTDVGISFTGVAGPGTLEGQPAGTVWIGLAYRDRPVKAKQYH   388
NTDB id 462 GPW51 RS00385 WP 012774894.1         QLGIES.................GWLS.EEADCIRQELQADLGLAVSVLIKPESTEDNVLAKVYLTLATPSGISQKEIDL   369
NTDB id 412 SMU RS09535 WP 002262393.1           SIEEKARMLGIPFEDLQLHGVVSAFTAEKMAERSRQLTQADLAISLTGVAGPDSLEGQPAGTVFIGLSSSKRTMAIKVLI   387
NTDB id 170 SP RS09755 WP 000642718.1            SLEEKSRMLDIPAKNLEEHGVVSEFTAQKMAEQARSKTQSDFGISLTGVAGPDSLEGHPVGTVFIGLAQDQGTEVIKVNI   391
NTDB id 280 KZH43 RS08670 WP 000642700.1         SLEEKSRMLDIPAKNLEEHGVVSEFTAQKMAEQARSKTQSDFGISLTGVAGPDSLEGHPVGTVFIGLAQDQGTEVIKVNI   391
NTDB id 205 SPR RS08830 WP 000642700.1           SLEEKSRMLDIPAKNLEEHGVVSEFTAQKMAEQARSKTQSDFGISLTGVAGPDSLEGHPVGTVFIGLAQDQGTEVIKVNI   391
NTDB id 239 SPD RS09270 WP 000642701.1           SLEEKSRMLDIPAKNLEEHGVVSEFTAQKMAEQARSKTQSDFGISLTGVAGPDSLEGHPVGTVFIGLAQDQGTEVIKVNI   391
NTDB id 538 SMSK321 RS11060 WP 000642686.1       SLEEKSKMLDIPVKDLEEQGVVSEFTAQKMAEQARSKTQSDFGISLTGVAGPDSLEGHPAGTVFIGLAQEHGTKVIKVNI   391
NTDB id 510 SM12261 RS08320 WP 000642690.1       SLEEKSKMLDIPVKDLEEQGVVSEFTAQKMAEQARIKTQSDFGLSLTGVAGPDSLEGHPAGTVFIGLAQEQGTEVIKVNI   391
consensus                                         ************ * ****************!*********!***********!***!******!********************
```

logo



```
NTDB id 124 BSU 16930 NP 389575.2                FAGSRTGIRKRGAKYGCHLILKLLEQK.....   416
NTDB id 185607 A8P51 RS10910 WP 003641503.1      FAGNRQQIRERSVMAGLDLLRHALNEDTDLKK   420
NTDB id 462 GPW51 RS00385 WP 012774894.1         GGYSWQYLRQLACLQAWDFVRNTL........   393
NTDB id 412 SMU RS09535 WP 002262393.1           GGRSRSDVRYIAVLHAFNLVRQTLLSHKNLV.   418
NTDB id 170 SP RS09755 WP 000642718.1            GGRSRADVRHIAVMHAFNLVRKALLSD.....   418
NTDB id 280 KZH43 RS08670 WP 000642700.1         GGRSRADVRHIAVMHAFNLVRKALLSD.....   418
NTDB id 205 SPR RS08830 WP 000642700.1           GGRSRADVRHIAVMHAFNLVRKALLSD.....   418
NTDB id 239 SPD RS09270 WP 000642701.1           GGRSRADVRHIAVMHAFNLVRKALLSD.....   418
NTDB id 538 SMSK321 RS11060 WP 000642686.1       GGRSRADVRHIAVMHAFNLVRKALLSD.....   418
NTDB id 510 SM12261 RS08320 WP 000642690.1       GGRSRADVRHIAVMHAFNLVRKALLSD.....   418
consensus                                         ********!**************!***
```

X non conserved
X similar
X ≥ 50% conserved