```
logo
NTDB id 345770 EXW61 RS07410 WP 033731186.1  ....MNAEIIAVGTELLLGQIANTNAQFLSEKLASIGINVYYHTVVGDNNKRLQKAIELAEERADMLIFTGGLGPTKDDL   76
NTDB id 124 BSU 16930 NP 389575.2            MEFPKKAEIIAVGSELLLGQIANTNAQFISKQLAEIGVNVFYHTAVGDNPERLKQVIRIAEERSDFIIFSGGLGPTKDDL   80
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 345770 EXW61 RS07410 WP 033731186.1  TKETIASSLDEELVYDEKALTSISDYFK.RTGREFTENNKKQALVLNGSTVFANDHGMAPGMGLNTNGKVYILLPGPPKE  155
NTDB id 124 BSU 16930 NP 389575.2            TKETIANTLGRPLVLNDEAFQSIEDYFK.RTKRTMSPNNRKQALVIEGSDVLANHFGMAPGMLTEHESRYYMLLPGPPSE  159
NTDB id 462 GPW51 RS00385 WP 012774894.1     TKQTLATFLGRNLVFDELAMAKLDRFFASRPGRVRTPNNERQAQIVEGSQALQNPAGLAVGGMIEQDGVTYIVLPGPPSE  156
NTDB id 412 SMU RS09535 WP 002262393.1       TKQTLAKFLKRELVFDKTAQERLDEFFASRPTSMRTPNNECQAQIIAGSQPLSNKTGLAVGGLLEADGVTYVVLPGPPSE  156
NTDB id 170 SP RS09755 WP 000642718.1        TKQTLAKFLGKALVFDPQAQEKLDIFFTLRPDYARTPNNERQAQIVEGAIPLPNETGLAVGGKLEVDGVTYVVLPGPPSE  156
NTDB id 280 KZH43 RS08670 WP 000642700.1     TKQTLAKFLGKALVFDPQAQEKLDIFFALRPDYARTPNNERQAQIVEGAIPLPNETGLAVGGKLEVDGVTYVVLPGPPSE  156
NTDB id 205 SPR RS08830 WP 000642700.1       TKQTLAKFLGKALVFDPQAQEKLDIFFALRPDYARTPNNERQAQIVEGAIPLPNETGLAVGGKLEVDGVTYVVLPGPPSE  156
NTDB id 239 SPD RS09270 WP 000642701.1       TKQTLAKFLGKALVFDPQAQEKLDIFFALRPDYARTPNNERQVQIVEGAIPLPNETGLAVGGKLEVDGVTYVVLPGPPSE  156
NTDB id 538 SMSK321 RS11060 WP 000642686.1   TKQTLAKFLGKELVFDPQAQEKLDVFFAQRPDYARTPNNERQAQIVEGATPLPNETGLAVGGILEVDGVTYVVLPGPPSE  156
NTDB id 510 SM12261 RS08320 WP 000642690.1   TKQTLAKFLGKELVFDPQAQEKLDVFFAQRPDYARTPNNERQAQLVEGAIPLPNETGLAVGGILEVDGVTYVVLPGPPSE  156
consensus                                    !!*!*!**!** !!*****!*******!* !*******!!**!*****!*****!**!*!*!*********!**!!!!!*!

logo
NTDB id 345770 EXW61 RS07410 WP 033731186.1  MKPMYISYVEPFLC.KFTTGENIYSRVLRFFGIGESQLEVKVQDLIDGQTNPTIAPLANDGEVTLRLTAKHYDADEAEKL  234
NTDB id 124 BSU 16930 NP 389575.2            LRPMFENEAKPLLLKKMGSNEKIVSTVLRFFGIGESQLEADLEDIIDAQTNPTIAPLAADGEVTLRLTAKHADEKETERL  239
NTDB id 462 GPW51 RS00385 WP 012774894.1     LKAMFSESLLPLLS...QSQQQLYSRVLRFFGIGESQLVTVLADVIDKQTDPTLAPYAKVGEVTLRLSTKATSQEEANLR  233
NTDB id 412 SMU RS09535 WP 002262393.1       LKPMVNKELLPYLS...KTSEKLYSRVLRFFGIGESHLVTLLHDLIAEQTDPTIAPYAKTGEVTIRLSTKAHRQKEADSK  233
NTDB id 170 SP RS09755 WP 000642718.1        LKPMVLNQLLPKLM....TGSKLYSRVLRFFGIGESQLVTILADLIDNQIDPTLAPYAKTGEVTLRLSTKASSQEEANQA  232
NTDB id 280 KZH43 RS08670 WP 000642700.1     LKPMVLNQLLPKLM....TGSKLYSRVLRFFGIGESQLVTILADLIDNQIDPTLAPYAKTGEVTLRLSTKASSQEEANQA  232
NTDB id 205 SPR RS08830 WP 000642700.1       LKPMVLNQLLPKLM....TGSKLYSRVLRFFGIGESQLVTILADLIDNQIDPTLAPYAKTGEVTLRLSTKASSQEEANQA  232
NTDB id 239 SPD RS09270 WP 000642701.1       LKPMVLNQLLPKLM....TGSKLYSRVLRFFGIGESQLVTILADLIDNQIDPTLAPYAKTGEVTLRLSTKASSQEEANQA  232
NTDB id 538 SMSK321 RS11060 WP 000642686.1   LKPMVLNQLLPKLM....TGSKLYSRVLRFFGIGESQLVTILSDLIDNQTDPTLAPYAKTGEVTLRLSTKASSQEEANQV  232
NTDB id 510 SM12261 RS08320 WP 000642690.1   LKPMVLNQLLPKLM....TGSKLHSRVLRFFGIGESQLVTILSDLIDNQTDPTLAPYAKTGEVTLRLSTKASSQEEANQV  232
consensus                                    ***!******!*!*     ******!*!!!!!!!!!!!*!*****!*!**!**!!*!!*!**!!!!*!!**!*****!***
```

```
logo
```

```
NTDB id 345770 EXW61 RS07410 WP 033731186.1   IQHVEDLILE.......RVGEFFYGYDQ.DFLHYKAIRLLKEKGLTLACAESLTGGLFGNQVTENAGVSSVFKGGVICYQ   306
NTDB id 124 BSU 16930 NP 389575.2             LKETEAVILE.......RVGEFFYGYDD.TSLVKELSIACKEKGITISAAESFTGGLFSEWLTDHSGASKLFAGGVVCYT   311
NTDB id 462 GPW51 RS00385 WP 012774894.1      LNQLEEDILQHD.....KLADYFYAYGEDNSLVKTVATRLAEKRQTIAIVEQGTGGLLQAELSLALADQPYFSGGKVVGQ   308
NTDB id 412 SMU RS09535 WP 002262393.1        LDKLEKKITTID.....NLADYFYGYGEENSLPQVVFDLLKEKGKTITAAESLTAGLFQARLADFAGASDIFKGGFITYS   308
NTDB id 170 SP RS09755 WP 000642718.1         LDILENQILDCQTFEGISLRDFCYGYGEETSLASIVVEELKRQGKTIAAAESLTAGLFQATVANFSGVSSIFKGGFVTYS   312
NTDB id 280 KZH43 RS08670 WP 000642700.1      LDILENQILDCQTFEGISLRDFCYGYGEETSLASIVVEELKRQGKTIAAAESLTAGLFQATVANFSGVSSIFEGGFVTYS   312
NTDB id 205 SPR RS08830 WP 000642700.1        LDILENQILDCQTFEGISLRDFCYGYGEETSLASIVVEELKRQGKTIAAAESLTAGLFQATVANFSGVSSIFEGGFVTYS   312
NTDB id 239 SPD RS09270 WP 000642701.1        LDILENQILDCQTFEGISLRDFCYGYGEETSLASIVVEELKRQGKTIAAAESLTAGLFQATVANFSGVSSIFEGGFVTYS   312
NTDB id 538 SMSK321 RS11060 WP 000642686.1    LDILENQILGRQTFEGLSLRDLCYGYGEEASLASIVVEELKKQGKTITAAESLTAGLFQATVADFSGASSIFKGGFVTYS   312
NTDB id 510 SM12261 RS08320 WP 000642690.1    LDILENQILGRQTFEGLSLRDLCYGYGEETSLASIVVEELKRQGKTITSAESLTAGLFQARVADFSGASSIFKGGFVTYS   312
consensus                                     ****!**!** ************!*!*****!************!****!**!*!!**************!*!!*****
```

```
logo
```

```
NTDB id 345770 EXW61 RS07410 WP 033731186.1   NDVKQQILHVPEEVLRTDGAVSKQCARYLAENVKELLKADIGISFTGVAGPDASEHKEPGTVFIGLVIKDEPAVVFSLNL   386
NTDB id 124 BSU 16930 NP 389575.2             NDVKQNVLGVKKETLDRFGAVSKECASELAKGVQKLTGSDIGISFTGVAGPDAQEGHEPGHVFIGISANGKE.EVHEFHF   390
NTDB id 462 GPW51 RS00385 WP 012774894.1      LGIES.................GWLS.EEADCIRQELQADLGLAVSVLIKPESTEDNVLAKVYLTLATPSGISQ.KEIDL   369
NTDB id 412 SMU RS09535 WP 002262393.1        IEEKARMLGIPFEDLQLHGVVSAFTAEKMAERSRQLTQADLAISLTGVAGPDSLEGQPAGTVFIGLSSSKRTMA.IKVLI   387
NTDB id 170 SP RS09755 WP 000642718.1         LEEKSRMLDIPAKNLEEHGVVSEFTAQKMAEQARSKTQSDFGISLTGVAGPDSLEGHPVGTVFIGLAQDQGTEV.IKVNI   391
NTDB id 280 KZH43 RS08670 WP 000642700.1      LEEKSRMLDIPAKNLEEHGVVSEFTAQKMAEQARSKTQSDFGISLTGVAGPDSLEGHPVGTVFIGLAQDQGTEV.IKVNI   391
NTDB id 205 SPR RS08830 WP 000642700.1        LEEKSRMLDIPAKNLEEHGVVSEFTAQKMAEQARSKTQSDFGISLTGVAGPDSLEGHPVGTVFIGLAQDQGTEV.IKVNI   391
NTDB id 239 SPD RS09270 WP 000642701.1        LEEKSRMLDIPAKNLEEHGVVSEFTAQKMAEQARSKTQSDFGISLTGVAGPDSLEGHPVGTVFIGLAQDQGTEV.IKVNI   391
NTDB id 538 SMSK321 RS11060 WP 000642686.1    LEEKSKMLDIPVKDLEEQGVVSEFTAQKMAEQARSKTQSDFGISLTGVAGPDSLEGHPAGTVFIGLAQEHGTKV.IKVNI   391
NTDB id 510 SM12261 RS08320 WP 000642690.1    LEEKSKMLDIPVKDLEEQGVVSEFTAQKMAEQARIKTQSDFGLSLTGVAGPDSLEGHPAGTVFIGLAQEQGTEV.IKVNI   391
consensus                                     *********** * ***************!*********!***********!***!******!************ *****
```

```
logo
```

```
NTDB id 345770 EXW61 RS07410 WP 033731186.1   SG.SRQQIRERSTKYGFYHLFKKLEEI........   412
NTDB id 124 BSU 16930 NP 389575.2             AG.SRTGIRKRGAKYGCHLILKLLEQK........   416
NTDB id 462 GPW51 RS00385 WP 012774894.1      GGYSWQYLRQL....ACLQAWDFVRNTL.......   393
NTDB id 412 SMU RS09535 WP 002262393.1        GGRSRSDVRYI....AVLHAFNLVRQTLLSHKNLV   418
NTDB id 170 SP RS09755 WP 000642718.1         GGRSRADVRHI....AVMHAFNLVRKALLSD....   418
NTDB id 280 KZH43 RS08670 WP 000642700.1      GGRSRADVRHI....AVMHAFNLVRKALLSD....   418
NTDB id 205 SPR RS08830 WP 000642700.1        GGRSRADVRHI....AVMHAFNLVRKALLSD....   418
NTDB id 239 SPD RS09270 WP 000642701.1        GGRSRADVRHI....AVMHAFNLVRKALLSD....   418
NTDB id 538 SMSK321 RS11060 WP 000642686.1    GGRSRADVRHI....AVMHAFNLVRKALLSD....   418
NTDB id 510 SM12261 RS08320 WP 000642690.1    GGRSRADVRHI....AVMHAFNLVRKALLSD....   418
consensus                                     *!*!****!**     ***************
```

X non conserved
X similar
X ≥ 50% conserved