```
logo
NTDB id 124 BSU 16930 NP 389575.2          MEFPKKAEIIAVGSELLLGQIANTNAQFISKQLAEIGVNVFYHTAVGDNPERLKQVIRIAEERSDFIIFSGGLGPTKDDL   80
NTDB id 423000 GMA19 RS09610 WP 043882165.1 ....MKAEIIAVGTELLLGQIVNTNAQYLSQELATIGIDVYFQTVVGDNINRLQEAIRIAQKRADIILFSGGLGPTQDDL   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          TKETIANTLGRPLVLNDEAFQSIEDYFKR.TKRTMSPNNRKQALVIEGSDVLANHFGMAPGMLTEHESRYYMLLPGPPSE  159
NTDB id 423000 GMA19 RS09610 WP 043882165.1 TKEAIAAVLGRKLHIDRLAMDKLDQFFRNRGVE.MTENNRRQALSIEGATPLENETGLAVGDAIAQDGKFYVVLPGPPKE  155
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 124 BSU 16930 NP 389575.2          LRPMFENEAKPLLLKK..MGSNEKIVSTVLRFFGIGESQLEADLEDIIDAQTNPTIAPLAADGEVTLRLTAKHADEKETE  237
NTDB id 423000 GMA19 RS09610 WP 043882165.1 LKPMFANQAKPWLLQQALSGEEMPIYSKMLKFAGIGESALETHLLDLIQSQTDPTIAPYAKEGEVTIRISTKAASESEAL  235
NTDB id 462 GPW51 RS00385 WP 012774894.1   LKAMFSESLLPLLSQ.....SQQQLYSRVLRFFGIGESQLVTVLADVIDKQTDPTLAPYAKVGEVTLRLSTKATSQEEAN  231
NTDB id 412 SMU RS09535 WP 002262393.1     LKPMVNKELLPYLSK.....TSEKLYSRVLRFFGIGESHLVTLLHDLIAEQTDPTIAPYAKTGEVTIRLSTKAHRQKEAD  231
NTDB id 170 SP RS09755 WP 000642718.1      LKPMVLNQLLPKLM......TGSKLYSRVLRFFGIGESQLVTILADLIDNQIDPTLAPYAKTGEVTLRLSTKASSQEEAN  230
NTDB id 280 KZH43 RS08670 WP 000642700.1   LKPMVLNQLLPKLM......TGSKLYSRVLRFFGIGESQLVTILADLIDNQIDPTLAPYAKTGEVTLRLSTKASSQEEAN  230
NTDB id 205 SPR RS08830 WP 000642700.1     LKPMVLNQLLPKLM......TGSKLYSRVLRFFGIGESQLVTILADLIDNQIDPTLAPYAKTGEVTLRLSTKASSQEEAN  230
NTDB id 239 SPD RS09270 WP 000642701.1     LKPMVLNQLLPKLM......TGSKLYSRVLRFFGIGESQLVTILADLIDNQIDPTLAPYAKTGEVTLRLSTKASSQEEAN  230
NTDB id 538 SMSK321 RS11060 WP 000642686.1 LKPMVLNQLLPKLM......TGSKLYSRVLRFFGIGESQLVTILSDLIDNQTDPTLAPYAKTGEVTLRLSTKASSQEEAN  230
NTDB id 510 SM12261 RS08320 WP 000642690.1 LKPMVLNQLLPKLM......TGSKLHSRVLRFFGIGESQLVTILSDLIDNQTDPTLAPYAKTGEVTLRLSTKASSQEEAN  230
consensus                                  !**!******!*!*      ******!**!*!*!!!!!*!***!*!*!**!**!!*!!*!**!!!!*!***!*****!**
```

```
logo

NTDB id 124 BSU 16930 NP 389575.2          RLLKETEAVILE.......RVGEFFYGYD.DTSLVKELSIACKEKGITISAAESFTGGLFSEWLTDHSGASKLFAGGVVC   309
NTDB id 423000 GMA19 RS09610 WP 043882165.1 IKLTATEVEIQQ.......RLSEYMYA.SEDVTLEKVIVDLMAKRGLTVSAAESCTGGMLMEHITSIPGSAVMFQGGIVC   307
NTDB id 462 GPW51 RS00385 WP 012774894.1   LRLNQLEEDILQHD.....KLADYFYAYGEDNSLVKTVATRLAEKRQTIAIVEQGTGGLLQAELSLALADQPYFSGGKVV   306
NTDB id 412 SMU RS09535 WP 002262393.1     SKLDKLEKKIITID.....NLADYFYGYGEENSLPQVVFDLLKEKGKTITAAESLTAGLFQARLADFAGASDIFKGGFIT   306
NTDB id 170 SP RS09755 WP 000642718.1      QALDILENQILDCQTFEGISLRDFCYGYGEETSLASIVVEELKRQGKTIAAAESLTAGLFQATVANFSGVSSIFKGGFVT   310
NTDB id 280 KZH43 RS08670 WP 000642700.1   QALDILENQILDCQTFEGISLRDFCYGYGEETSLASIVVEELKRQGKTIAAAESLTAGLFQATVANFSGVSSIFEGGFVT   310
NTDB id 205 SPR RS08830 WP 000642700.1     QALDILENQILDCQTFEGISLRDFCYGYGEETSLASIVVEELKRQGKTIAAAESLTAGLFQATVANFSGVSSIFEGGFVT   310
NTDB id 239 SPD RS09270 WP 000642701.1     QALDILENQILDCQTFEGISLRDFCYGYGEETSLASIVVEELKRQGKTIAAAESLTAGLFQATVANFSGVSSIFEGGFVT   310
NTDB id 538 SMSK321 RS11060 WP 000642686.1 QVLDILENQILGRQTFEGLSLRDLCYGYGEEASLASIVVEELKKQGKTITAAESLTAGLFQATVADFSGASSIFKGGFVT   310
NTDB id 510 SM12261 RS08320 WP 000642690.1 QVLDILENQILGRQTFEGLSLRDLCYGYGEETSLASIVVEELKRQGKTITSAESLTAGLFQARVADFSGASSIFKGGFVT   310
consensus                                  * !***!**!** ************!*******!************!****!**!*!******* *** ***! !!***

logo

NTDB id 124 BSU 16930 NP 389575.2          YTNDVKQNVLGVKKETLDR...FGAVSKECASELAKGVQKLTGSDIGISFTGVAGPDAQEGHEPGHVFIGISANGKEE.V   385
NTDB id 423000 GMA19 RS09610 WP 043882165.1 YSNEMKMKLLNVPYDYLEGDQAPGAVSKEVALVLAEQARMIMDSDFGLSVTGVAGPGYSERKPVGLVYIGIAERDKETEV   387
NTDB id 462 GPW51 RS00385 WP 012774894.1   GQLGIES.....................GWLS.EEADCIRQELQADLGLAVSVLIKPESTEDNVLAKVYLTLATPSGIS.Q   364
NTDB id 412 SMU RS09535 WP 002262393.1     YSIEEKARMLGIPFEDLQL...HGVVSAFTAEKMAERSRQLTQADLAISLTGVAGPDSLEGQPAGTVFIGLSSSKRTM.A   382
NTDB id 170 SP RS09755 WP 000642718.1      YSLEEKSRMLDIPAKNLEE...HGVVSEFTAQKMAEQARSKTQSDFGISLTGVAGPDSLEGHPVGTVFIGLAQDQGTE.V   386
NTDB id 280 KZH43 RS08670 WP 000642700.1   YSLEEKSRMLDIPAKNLEE...HGVVSEFTAQKMAEQARSKTQSDFGISLTGVAGPDSLEGHPVGTVFIGLAQDQGTE.V   386
NTDB id 205 SPR RS08830 WP 000642700.1     YSLEEKSRMLDIPAKNLEE...HGVVSEFTAQKMAEQARSKTQSDFGISLTGVAGPDSLEGHPVGTVFIGLAQDQGTE.V   386
NTDB id 239 SPD RS09270 WP 000642701.1     YSLEEKSRMLDIPAKNLEE...HGVVSEFTAQKMAEQARSKTQSDFGISLTGVAGPDSLEGHPVGTVFIGLAQDQGTE.V   386
NTDB id 538 SMSK321 RS11060 WP 000642686.1 YSLEEKSKMLDIPVKDLEE...QGVVSEFTAQKMAEQARSKTQSDFGISLTGVAGPDSLEGHPAGTVFIGLAQEHGTK.V   386
NTDB id 510 SM12261 RS08320 WP 000642690.1 YSLEEKSKMLDIPVKDLEE...QGVVSEFTAQKMAEQARIKTQSDFGLSLTGVAGPDSLEGHPAGTVFIGLAQEQGTE.V   386
consensus                                  ************* * ***   ************!*********!**********!***!******!************ *

logo

NTDB id 124 BSU 16930 NP 389575.2          HEFHFAGSRTGIRKRGAKYG.CHLILKLLEQK........   416
NTDB id 423000 GMA19 RS09610 WP 043882165.1 HELRLSGNRETIRLRSVKAILYRLWRRLVENEKLS.....   422
NTDB id 462 GPW51 RS00385 WP 012774894.1   KEIDLGGYS.WQYLRQLAC..LQAWD.FVRNTL.......   393
NTDB id 412 SMU RS09535 WP 002262393.1     IKVLIGGRS.RSDVRYIAV..LHAFN.LVRQTLLSHKNLV   418
NTDB id 170 SP RS09755 WP 000642718.1      IKVNIGGRS.RADVRHIAV..MHAFN.LVRKALLSD....   418
NTDB id 280 KZH43 RS08670 WP 000642700.1   IKVNIGGRS.RADVRHIAV..MHAFN.LVRKALLSD....   418
NTDB id 205 SPR RS08830 WP 000642700.1     IKVNIGGRS.RADVRHIAV..MHAFN.LVRKALLSD....   418
NTDB id 239 SPD RS09270 WP 000642701.1     IKVNIGGRS.RADVRHIAV..MHAFN.LVRKALLSD....   418
NTDB id 538 SMSK321 RS11060 WP 000642686.1 IKVNIGGRS.RADVRHIAV..MHAFN.LVRKALLSD....   418
NTDB id 510 SM12261 RS08320 WP 000642690.1 IKVNIGGRS.RADVRHIAV..MHAFN.LVRKALLSD....   418
consensus                                  ******!** ****!****  *****  *********
```

X non conserved

X similar

X $\geq$ 50% conserved