```
logo
NTDB id 402768 FOB83 RS18685 WP 011516158.1   MAKTKTVYTCTECGGTTPRWAGQCPQCNAWNTLVETVADSGSSAARRFQ..PLATSAVVRKLSEIEAADVPRFSTGIDEF   78
NTDB id 125 BSU 00870 NP 387968.1             MAKTKSKFICQSCGYESPKWMGKCPGCGAWNTMVEEMIKKAPANRRAAFSHSVQTVQKPSPITSIETSEEPRVKTQLGEF   80
NTDB id 279 KZH43 RS00140 WP 074017595.1      MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEVAEVKNARVSLTGE...KTKPMKLAEVTSINVNRTKTEMEEF   77
NTDB id 238 SPD RS00140 WP 074017595.1        MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEVAEVKNARVSLTGE...KTKPMKLAEVTSINVNRTKTEMEEF   77
NTDB id 204 SPR RS00140 WP 074017595.1        MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEVAEVKNARVSLTGE...KTKPMKLAEVTSINVNRTKTEMEEF   77
NTDB id 169 SP RS00155 WP 074017595.1         MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEVAEVKNARVSLTGE...KTKPMKLAEVTSINVNRTKTEMEEF   77
NTDB id 537 SMSK321 RS07120 WP 080550752.1    MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEVAEVKNARVSLTGE...KTKPMKLAEVTSINVNRTKTEMEEF   77
NTDB id 509 SM12261 RS00130 WP 078228442.1    MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEVAEVKNARVSLTGE...KTKPMKLAEVTSINVNRTKTEMEEF   77
consensus                                     !!!*!****!**!!***!***!*!!*!**!***!!**********!******   ****************!**!***!!

logo
NTDB id 402768 FOB83 RS18685 WP 011516158.1   DRVLGGGLVSGGVVLIGGDPGIGKSTLLLQTLANLSAS.RRVLYVSGEESAAQIALRAHRLGVEAATLGLLPEIQLEKIQ   157
NTDB id 125 BSU 00870 NP 387968.1             NRVLGGGVVKGSLVLIGGDPGIGKSTLLLQVSAQLSGSSNSVLYISGEESVKQTKLRADRLGINNPSLHVLSETDMEYIS   160
NTDB id 279 KZH43 RS00140 WP 074017595.1      NRVLGGGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQV.GTVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSVR   156
NTDB id 238 SPD RS00140 WP 074017595.1        NRVLGGGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQV.GTVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSVR   156
NTDB id 204 SPR RS00140 WP 074017595.1        NRVLGGGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQV.GTVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSVR   156
NTDB id 169 SP RS00155 WP 074017595.1         NRVLGGGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQV.GTVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSVR   156
NTDB id 537 SMSK321 RS07120 WP 080550752.1    NRVLGGGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQV.GTVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSVR   156
NTDB id 509 SM12261 RS00130 WP 078228442.1    NRVLGGGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQV.GTVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSVR   156
consensus                                     *!!!!!!*!*!**!!!!!!!!!!!!!!!!!!!***!!** **!!!!*!!!!!*!**!!!*!!!*********!*******

logo
NTDB id 402768 FOB83 RS18685 WP 011516158.1   ATLEADKPEVAVIDSIQTVYSEALTSAPGSVAQVRECAAQLTRIAKSTGITIILVGHVTKEGSLAGPRVLEHIVDTVLYF   237
NTDB id 125 BSU 00870 NP 387968.1             SAIQEMNPSFVVVDSIQTVYQSDITSAPGSVSQVRECTAELMKIAKTKGIPIFIVGHVTKEGSIAGPRLLEHMVDTVLYF   240
NTDB id 279 KZH43 RS00140 WP 074017595.1      AEVERIQPDFLIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLYF   236
NTDB id 238 SPD RS00140 WP 074017595.1        AEVERIQPDFLIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLYF   236
NTDB id 204 SPR RS00140 WP 074017595.1        AEVERIQPDFLIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLYF   236
NTDB id 169 SP RS00155 WP 074017595.1         AEVERIQPDFLIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLYF   236
NTDB id 537 SMSK321 RS07120 WP 080550752.1    AEVERIQPDFLIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLYF   236
NTDB id 509 SM12261 RS00130 WP 078228442.1    TEVERIQPDFLIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLYF   236
consensus                                     *******!*****!!!!!**********!!!*!!!!**!*!***!!***!*!**!!!!!!!!**!!!!*!!!*!!!!!!!

logo
NTDB id 402768 FOB83 RS18685 WP 011516158.1   EGDTHSSHRLIRAFKNRFGAVNELGVFAMTERGLRGISNPSALFLSQHEEQVAGSCVLVTQEGTRPLLVEVQALVDTANV   317
NTDB id 125 BSU 00870 NP 387968.1             EGERHHTFRILRAVKNRFGSTNEMGIFEMREEGLTEVLNPSEIFLEERSAGSAGSSITASMEGTRPILVEIQALISPTSF   320
NTDB id 279 KZH43 RS00140 WP 074017595.1      EGERHHTFRILRAVKNRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTMF   316
NTDB id 238 SPD RS00140 WP 074017595.1        EGERHHTFRILRAVKNRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTMF   316
NTDB id 204 SPR RS00140 WP 074017595.1        EGERHHTFRILRAVKNRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTMF   316
NTDB id 169 SP RS00155 WP 074017595.1         EGERHHTFRILRAVKNRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTMF   316
NTDB id 537 SMSK321 RS07120 WP 080550752.1    EGERHHTFRILRAVKNRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTMF   316
NTDB id 509 SM12261 RS00130 WP 078228442.1    EGERHHTFRILRAVKNRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTMF   316
consensus                                     !!**!***!**!!*!!!!!**!!*!*!*!***!!****!!!**!!********!!******!!!!!*!*!*!!!******
```

```
logo
NTDB id 402768 FOB83 RS18685 WP 011516158.1   PNPRRLAVGLEQNRLAMLLAVLHRHAGIACFDQDVFLNAVGGVKITEPAADLAVLLSIHSSMRNKPLPRGLVVFGEVGLA   397
NTDB id 125 BSU 00870 NP 387968.1             GNPRRMATGIDHNRVSLLMAVLEKRVGLLLQNQDAYLKVAGGVKLDEPAIDLAIVISIASSFRDTPPNPADCFIGEVGLT   400
NTDB id 279 KZH43 RS00140 WP 074017595.1      GNAKRTTTGLDFNRASLIMAVLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGLT   396
NTDB id 238 SPD RS00140 WP 074017595.1        GNAKRTTTGLDFNRASLIMAVLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGLT   396
NTDB id 204 SPR RS00140 WP 074017595.1        GNAKRTTTGLDFNRASLIMAVLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGLT   396
NTDB id 169 SP RS00155 WP 074017595.1         GNAKRTTTGLDFNRASLIMAVLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGLT   396
NTDB id 537 SMSK321 RS07120 WP 080550752.1    GNAKRTTTGLDFNRASLIMAVLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGLT   396
NTDB id 509 SM12261 RS00130 WP 078228442.1    GNAKRTTTGLDFNRASLIMAVLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGLT   396
consensus                                     *!**!***!***!!*****!!!****!*****!!**!**!!!!**!!!*!!!****!*!!****!********!!*!!*

logo
NTDB id 402768 FOB83 RS18685 WP 011516158.1   GEIRPSPRGQERLKEAAKLGFTMAVIPKANAPKQR.IDGLEVIAVDRLEQAIDRVRHLD   455
NTDB id 125 BSU 00870 NP 387968.1             GEVRRVSRIEQRVKEAAKLGFKRMIIPAANLDGWTKPKGIEVIGVANVAEALRTSLGG.   458
NTDB id 279 KZH43 RS00140 WP 074017595.1      GEIRRVNRIEQRINEAAKLGFTKIYVPKNSLTGITLPKEIQVIGVTTIQEVLKKVFA..   453
NTDB id 238 SPD RS00140 WP 074017595.1        GEIRRVNRIEQRINEAAKLGFTKIYVPKNSLTGITLPKEIQVIGVTTIQEVLKKVFA..   453
NTDB id 204 SPR RS00140 WP 074017595.1        GEIRRVNRIEQRINEAAKLGFTKIYVPKNSLTGITLPKEIQVIGVTTIQEVLKKVFA..   453
NTDB id 169 SP RS00155 WP 074017595.1         GEIRRVNRIEQRINEAAKLGFTKIYVPKNSLTGITLPKEIQVIGVTTIQEVLKKVFA..   453
NTDB id 537 SMSK321 RS07120 WP 080550752.1    GEIRRVNRIEQRINEAAKLGFTKIYVPKNSLTGITPPMEIQVIGVTTIQEVLKKVFA..   453
NTDB id 509 SM12261 RS00130 WP 078228442.1    GEIRRVNRIEQRINEAAKLGFTKIYVPKNSLTGITPPKEIQVIGVTTIQEVLKKVFA..   453
consensus                                     !!*!***!***!**!!!!!!!!*****!********  *****!!*!************
```

X non conserved

X similar

X $\geq$ 50% conserved