```
logo
NTDB id 125 BSU 00870 NP 387968.1          .MAKTKSKFICQSCGYESPKWMGKCPGCGAWNTMVEEMIKKAPANRRAAFSHSVQTVQKPSPITSIETSEEPRVKTQLGE   79
NTDB id 1006552 ABKJ37 RS00485 WP 010761995.1 MAKKAKVQFECQTCGYISPKYLGRCPNCGQWNTMTEEIIQDTTDRRAR.VS.LTGKKTQPQRLAEVVPKKEPRVKTKLVE   78
NTDB id 509 SM12261 RS00130 WP 078228442.1 .MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEV.AEVKNAR.VS.LTGEKTKPMKLAEVTSINVNRTKTEMEE   76
NTDB id 537 SMSK321 RS07120 WP 080550752.1 .MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEV.AEVKNAR.VS.LTGEKTKPMKLAEVTSINVNRTKTEMEE   76
NTDB id 279 KZH43 RS00140 WP 074017595.1   .MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEV.AEVKNAR.VS.LTGEKTKPMKLAEVTSINVNRTKTEMEE   76
NTDB id 238 SPD RS00140 WP 074017595.1     .MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEV.AEVKNAR.VS.LTGEKTKPMKLAEVTSINVNRTKTEMEE   76
NTDB id 204 SPR RS00140 WP 074017595.1     .MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEV.AEVKNAR.VS.LTGEKTKPMKLAEVTSINVNRTKTEMEE   76
NTDB id 169 SP RS00155 WP 074017595.1      .MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEV.AEVKNAR.VS.LTGEKTKPMKLAEVTSINVNRTKTEMEE   76
consensus                                   **!*!**!*!!*!!!*!!!**!*!!*!!*!****!!***  *******  *!  *******!************!*!!***!

logo
NTDB id 125 BSU 00870 NP 387968.1          FNRVLGGGVVKGSLVLIGGDPGIGKSTLLLQVSAQLSGSSNSVLYISGEESVKQTKLRADRLGINNPSLHVLSETDMEYI   159
NTDB id 1006552 ABKJ37 RS00485 WP 010761995.1 LNRVLGGGVVPGSLVLIGGDPGIGKSTLLLQVSQQLAEIGGKVLYVSGEESAEQIKMRAERLSSIDTEFYLYAETDMNEI   158
NTDB id 509 SM12261 RS00130 WP 078228442.1 FNRVLGGGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQVG.TVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSV   155
NTDB id 537 SMSK321 RS07120 WP 080550752.1 FNRVLGGGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQVG.TVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSV   155
NTDB id 279 KZH43 RS00140 WP 074017595.1   FNRVLGGGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQVG.TVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSV   155
NTDB id 238 SPD RS00140 WP 074017595.1     FNRVLGGGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQVG.TVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSV   155
NTDB id 204 SPR RS00140 WP 074017595.1     FNRVLGGGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQVG.TVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSV   155
NTDB id 169 SP RS00155 WP 074017595.1      FNRVLGGGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQVG.TVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSV   155
consensus                                  *!!!!!!!!!*!!!!!!!!!!!!!!!!!!!!!!!!!!!!*!!****  *!!!*!!!!!**!*!*!!*!!*************!!*!***

logo
NTDB id 125 BSU 00870 NP 387968.1          SSAIQEMNPSFVVVDSIQTVYQSDITSAPGSVSQVRECTAELMKIAKTKGIPIFIVGHVTKEGSIAGPRLLEHMVDTVLY   239
NTDB id 1006552 ABKJ37 RS00485 WP 010761995.1 SRAIEKLEPDYVIIDSIQTMTQPDVTSVAGSVSQVRETTAELLKIAKTNGIAIFIVGHVTKEGSIAGPRMLEHMVDTVLY   238
NTDB id 509 SM12261 RS00130 WP 078228442.1 RTEVERIQPDFLIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLY   235
NTDB id 537 SMSK321 RS07120 WP 080550752.1 RAEVERIQPDFLIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLY   235
NTDB id 279 KZH43 RS00140 WP 074017595.1   RAEVERIQPDFLIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLY   235
NTDB id 238 SPD RS00140 WP 074017595.1     RAEVERIQPDFLIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLY   235
NTDB id 204 SPR RS00140 WP 074017595.1     RAEVERIQPDFLIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLY   235
NTDB id 169 SP RS00155 WP 074017595.1      RAEVERIQPDFLIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLY   235
consensus                                  ********!*****!!!!!!**********!!!!!!!!!*!!!!***!!!**!*!!!!!!!!!!!!**!!!!*!!!!!!!!!!

logo
NTDB id 125 BSU 00870 NP 387968.1          FEGERHHTFRILRAVKNRFGSTNEMGIFEMREEGLTEVLNPSEIFLEERSAGSAGSSITASMEGTRPILVEIQALISPTS   319
NTDB id 1006552 ABKJ37 RS00485 WP 010761995.1 FEGDKHHTFRILRAVKNRFGSTNEIGIFEMREHGLEEVANPSQVFLEERLADATGSAIVVAMEGTRPILVEVQALVTPTM   318
NTDB id 509 SM12261 RS00130 WP 078228442.1 FEGERHHTFRILRAVKNRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTM   315
NTDB id 537 SMSK321 RS07120 WP 080550752.1 FEGERHHTFRILRAVKNRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTM   315
NTDB id 279 KZH43 RS00140 WP 074017595.1   FEGERHHTFRILRAVKNRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTM   315
NTDB id 238 SPD RS00140 WP 074017595.1     FEGERHHTFRILRAVKNRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTM   315
NTDB id 204 SPR RS00140 WP 074017595.1     FEGERHHTFRILRAVKNRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTM   315
NTDB id 169 SP RS00155 WP 074017595.1      FEGERHHTFRILRAVKNRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTM   315
consensus                                  !!!**!!!!!!!!!!!!!!!!!!!!!*!!!!!***!!*!!*!!!**!!!!!*****!!*!***!!!!!!!!!*!*!!!**!!*
```

```
logo

NTDB id 125 BSU 00870 NP 387968.1          FGNPRRMATGIDHNRVSLLMAVLEKRVGLLLQNQDAYLKVAGGVKLDEPAIDLAIVISIASSFRDTPPNPADCFIGEVGL   399
NTDB id 1006552 ABKJ37 RS00485 WP 010761995.1 FGNAKRTTTGLDFNRVSLIMAVLEKRAGLLLQNQDAYLKAAGGVKINEPAIDLAVAVSIASSYKENGTKPTECFIGEIGL   398
NTDB id 509 SM12261 RS00130 WP 078228442.1 FGNAKRTTTGLDFNRASLIMAVLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGL   395
NTDB id 537 SMSK321 RS07120 WP 080550752.1 FGNAKRTTTGLDFNRASLIMAVLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGL   395
NTDB id 279 KZH43 RS00140 WP 074017595.1 FGNAKRTTTGLDFNRASLIMAVLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGL   395
NTDB id 238 SPD RS00140 WP 074017595.1 FGNAKRTTTGLDFNRASLIMAVLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGL   395
NTDB id 204 SPR RS00140 WP 074017595.1 FGNAKRTTTGLDFNRASLIMAVLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGL   395
NTDB id 169 SP RS00155 WP 074017595.1 FGNAKRTTTGLDFNRASLIMAVLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGL   395
consensus                                  !!!**!**!!*!*!!*!!*!!!!!!!*!!!!!!!!!!!!!*!!!!!**!!!!!!!****!!!!*****!**!!*!!*!!

logo

NTDB id 125 BSU 00870 NP 387968.1          TGEVRRVSRIEQRVKEAAKLGFKRMIIPAANLDGWTKPKGIEVIGVANVAEALRTSLGG   458
NTDB id 1006552 ABKJ37 RS00485 WP 010761995.1 TGEIRRVNSIEQRVREAQKLGFTKIYLPKNNLGGWTPPEGIEIVGVATIGETLRKVFK.   456
NTDB id 509 SM12261 RS00130 WP 078228442.1 TGEIRRVNRIEQRINEAAKLGFTKIYVPKNSLTGITPPKEIQVIGVTTIQEVLKKVFA.   453
NTDB id 537 SMSK321 RS07120 WP 080550752.1 TGEIRRVNRIEQRINEAAKLGFTKIYVPKNSLTGITPPMEIQVIGVTTIQEVLKKVFA.   453
NTDB id 279 KZH43 RS00140 WP 074017595.1 TGEIRRVNRIEQRINEAAKLGFTKIYVPKNSLTGITLPKEIQVIGVTTIQEVLKKVFA.   453
NTDB id 238 SPD RS00140 WP 074017595.1 TGEIRRVNRIEQRINEAAKLGFTKIYVPKNSLTGITLPKEIQVIGVTTIQEVLKKVFA.   453
NTDB id 204 SPR RS00140 WP 074017595.1 TGEIRRVNRIEQRINEAAKLGFTKIYVPKNSLTGITLPKEIQVIGVTTIQEVLKKVFA.   453
NTDB id 169 SP RS00155 WP 074017595.1 TGEIRRVNRIEQRINEAAKLGFTKIYVPKNSLTGITLPKEIQVIGVTTIQEVLKKVFA.   453
consensus                                  !!!*!!!**!!!!**!!*!!!!*****!***!*!*! !**!***!!****!*!*****
```

X non conserved

X similar

X ≥ 50% conserved