```
logo
NTDB id 332987 ELQ88 RS06050 WP 064675792.1  MAKAKRMYGCTECGSTFPKWAGQCGECGAWNTLTETMVESGGAAAPSGRTGWTGQQAQIRTLAEVSVEEIPRFSTASGEL   80
NTDB id 125 BSU 00870 NP 387968.1            MAKTKSKFICQSCGYESPKWMGKCPGCGAWNTMVEEMIKKAPANRRAAFSHSVQTVQKPSPITSIETSEEPRVKTQLGEF   80
NTDB id 537 SMSK321 RS07120 WP 080550752.1   MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEVAEVKNARVSLTGE...KTKPMKLAEVTSINVNRTKTEMEEF   77
NTDB id 509 SM12261 RS00130 WP 078228442.1   MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEVAEVKNARVSLTGE...KTKPMKLAEVTSINVNRTKTEMEEF   77
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
consensus                                    !!!*!****!**!!***!!**!*!**!!*!****!****************   ****************!**!***!*

logo
NTDB id 332987 ELQ88 RS06050 WP 064675792.1  DRVLGGGLVDGSVVLIGGDPGIGKSTILLQTLCNLAKS.MPALYVTGEESQQQVAMRARRLGLPQDQLRVMTETCIETII   159
NTDB id 125 BSU 00870 NP 387968.1            NRVLGGGVVKGSLVLIGGDPGIGKSTLLLQVSAQLSGSSNSVLYISGEESVKQTKLRADRLGINNPSLHVLSETDMEYIS   160
NTDB id 537 SMSK321 RS07120 WP 080550752.1   NRVLGGGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQV.GTVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSVR   156
NTDB id 509 SM12261 RS00130 WP 078228442.1   NRVLGGGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQV.GTVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSVR   156
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
consensus                                    *!!!!!!*!*!!*!!!!!!!!!!!!!!*!!!****!***  ***!!**!!!!**!***!!*!!!**********!!******

logo
NTDB id 332987 ELQ88 RS06050 WP 064675792.1  ATARQEKPKVMVIDSIQTIFTEQLQSAPGGVSQVRESAALLVRYAKQSGTAIFLVGHVTKEGALAGPRVLEHMVDTVLYF   239
NTDB id 125 BSU 00870 NP 387968.1            SAIQEMNPSFVVVDSIQTVYQSDITSAPGSVSQVRECTAELMKIAKTKGIPIFIVGHVTKEGSIAGPRLLEHMVDTVLYF   240
NTDB id 537 SMSK321 RS07120 WP 080550752.1   AEVERIQPDFLIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLYF   236
NTDB id 509 SM12261 RS00130 WP 078228442.1   TEVERIQPDFLIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLYF   236
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
consensus                                    *******!*****!!!!!**********!*!!!!!!**!*!***!!*****!!*!!!!!!!!**!!!!*!!!!!!!!!!!

logo
NTDB id 332987 ELQ88 RS06050 WP 064675792.1  EGESDGRLRLLRAVKNRFGAVNELGVFGMTDKGLKEVSNPSAIFLTRAQEEVPGSVVMATWEGTRPMLVEVQALVDDSHL   319
NTDB id 125 BSU 00870 NP 387968.1            EGERHHTFRILRAVKNRFGSTNEMGIFEMREEGLTEVLNPSEIFLEERSAGSAGSSITASMEGTRPILVEIQALISPTSF   320
NTDB id 537 SMSK321 RS07120 WP 080550752.1   EGERHHTFRILRAVKNRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTMF   316
NTDB id 509 SM12261 RS00130 WP 078228442.1   EGERHHTFRILRAVKNRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTMF   316
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
consensus                                    !!!*****!*!!!!!!!!!**!!*!*!*!***!!*!!*!!!**!!********!!******!!!!!*!*!*!!!******
```

```
logo
NTDB id 332987 ELQ88 RS06050 WP 064675792.1  ANPRRVTLGLDQNRLAMLLAVLHRHGGIPTHDQDVFLNVVGGVKVLETASDLALMAAVMSSLRNRPLPHDLLVFGEVGLS  399
NTDB id 125 BSU 00870 NP 387968.1            GNPRRMATGIDHNRVSLLMAVLEKRVGLLLQNQDAYLKVAGGVKLDEPAIDLAIVISIASSFRDTPPNPADCFIGEVGLT  400
NTDB id 537 SMSK321 RS07120 WP 080550752.1   GNAKRTTTGLDFNRASLIMAVLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGLT  396
NTDB id 509 SM12261 RS00130 WP 078228442.1   GNAKRTTTGLDFNRASLIMAVLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGLT  396
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
consensus                                    *!**!***!*!*!!*****!!!****!*****!!**!**!!!!**!*!*!!!******!!****!********!!*!!*

logo
NTDB id 332987 ELQ88 RS06050 WP 064675792.1  GEVRPVPSGQERLKEAAKHGFKRAIVPKGNAPK.EAPPGLQIIAVTRLEQALDALFE.  455
NTDB id 125 BSU 00870 NP 387968.1            GEVRRVSRIEQRVKEAAKLGFKRMIIPAANLDGWTKPKGIEVIGVANVAEALRTSLGG  458
NTDB id 537 SMSK321 RS07120 WP 080550752.1   GEIRRVNRIEQRINEAAKLGFTKIYVPKNSLTGITPPMEIQVIGVTTIQEVLKKVFA.  453
NTDB id 509 SM12261 RS00130 WP 078228442.1   GEIRRVNRIEQRINEAAKLGFTKIYVPKNSLTGITPPKEIQVIGVTTIQEVLKKVFA.  453
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
consensus                                    !!*!*!*****!**!!!!*!!*****!********  !*****!*!******!*****
```

X non conserved

X similar

X $\geq$ 50% conserved