logo



```
NTDB id 125 BSU 00870 NP 387968.1          MAKTKSKFICQSCGYESPKWMGKCPGCGAWNTMVEEMIKKAPANRRAAFSHSVQTVQKPSPITSIETSEEPRVKTQLGEFNRVLG  85
NTDB id 211633 PL11 RS07615 WP 035167602.1 MAKVKTQFVCQNCGYISPRYLGRCPNCNEWNTLVEETVAAKPTASAKASVSGGIHNNRPESINQVTFKEESRSDTGLTELNRVLG  85
NTDB id 279 KZH43 RS00140 WP 074017595.1   MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEVAEVKN.ARVSLTG..EKTKPMKLAEVTSINVNRTKTEMEEFNRVLG  82
NTDB id 238 SPD RS00140 WP 074017595.1     MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEVAEVKN.ARVSLTG..EKTKPMKLAEVTSINVNRTKTEMEEFNRVLG  82
NTDB id 204 SPR RS00140 WP 074017595.1     MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEVAEVKN.ARVSLTG..EKTKPMKLAEVTSINVNRTKTEMEEFNRVLG  82
NTDB id 169 SP RS00155 WP 074017595.1      MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEVAEVKN.ARVSLTG..EKTKPMKLAEVTSINVNRTKTEMEEFNRVLG  82
NTDB id 509 SM12261 RS00130 WP 078228442.1 MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEVAEVKN.ARVSLTG..EKTKPMKLAEVTSINVNRTKTEMEEFNRVLG  82
NTDB id 537 SMSK321 RS07120 WP 080550752.1 MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEVAEVKN.ARVSLTG..EKTKPMKLAEVTSINVNRTKTEMEEFNRVLG  82
consensus                                  !!!*!**!*!!*!!!*!!***!*!!*!**!***!!!*********  *******  ****!*************!**!***!*!!!!!
```

logo



```
NTDB id 125 BSU 00870 NP 387968.1          GGVVKGSLVLIGGDPGIGKSTLLLQVSAQLSGSSNSVLYISGEESVKQTKLRADRLGINNPSLHVLSETDMEYISSAIQEMNPSF  170
NTDB id 211633 PL11 RS07615 WP 035167602.1 GGVVPGSLVLIGGDPGIGKSTLLLQVSGNLANH.SKVLYVSGEESASQIKMRADRLGVNGDDLYVYPETDMNVIKSAINDVSPDV  169
NTDB id 279 KZH43 RS00140 WP 074017595.1   GGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQV.GTVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSVRAEVERIQPDF  166
NTDB id 238 SPD RS00140 WP 074017595.1     GGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQV.GTVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSVRAEVERIQPDF  166
NTDB id 204 SPR RS00140 WP 074017595.1     GGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQV.GTVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSVRAEVERIQPDF  166
NTDB id 169 SP RS00155 WP 074017595.1      GGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQV.GTVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSVRAEVERIQPDF  166
NTDB id 509 SM12261 RS00130 WP 078228442.1 GGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQV.GTVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSVRTEVERIQPDF  166
NTDB id 537 SMSK321 RS07120 WP 080550752.1 GGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQV.GTVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSVRAEVERIQPDF  166
consensus                                  !!!!*!!!!!!!!!!!!!!!!!!!!!!!!**!*** **!!!*!!!!!**!*!*!!*!!!**********!!*!**********!**
```

logo



```
NTDB id 125 BSU 00870 NP 387968.1          VVVDSIQTVYQSDITSAPGSVSQVRECTAELMKIAKTKGIPIFIVGHVTKEGSIAGPRLLEHMVDTVLYFEGERHHTFRILRAVK  255
NTDB id 211633 PL11 RS07615 WP 035167602.1 VVVDSVQTMQIPELQSATGSVAQIREVTADLMSIAKGQGITVFVVGHVTKGGAIAGPKILEHMVDTVLYFEGDLHHSYRILRAVK  254
NTDB id 279 KZH43 RS00140 WP 074017595.1   LIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLYFEGERHHTFRILRAVK  251
NTDB id 238 SPD RS00140 WP 074017595.1     LIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLYFEGERHHTFRILRAVK  251
NTDB id 204 SPR RS00140 WP 074017595.1     LIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLYFEGERHHTFRILRAVK  251
NTDB id 169 SP RS00155 WP 074017595.1      LIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLYFEGERHHTFRILRAVK  251
NTDB id 509 SM12261 RS00130 WP 078228442.1 LIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLYFEGERHHTFRILRAVK  251
NTDB id 537 SMSK321 RS07120 WP 080550752.1 LIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLYFEGERHHTFRILRAVK  251
consensus                                  ***!!*!!**********!!!*!*!!*!!*!!**!!***!**!*!!!!!!*!**!!!**!!!!!!!!!!!!!!!**!!**!!!!!!!
```

logo



```
NTDB id 125 BSU 00870 NP 387968.1          NRFGSTNEMGIFEMREEGLTEVLNPSEIFLEERSAGSAGSSITASMEGTRPILVEIQALISPTSFGNPRRMATGIDHNRVSLLMA  340
NTDB id 211633 PL11 RS07615 WP 035167602.1 NRFGSTNELGVFEMREDGLAEVSNPSEIFLEERLKDATGSAIVVSMEGTRPILVEIQALVTSSVFGNAQRTATGLDRNRVSLIMA  339
NTDB id 279 KZH43 RS00140 WP 074017595.1   NRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTMFGNAKRTTTGLDFNRASLIMA  336
NTDB id 238 SPD RS00140 WP 074017595.1     NRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTMFGNAKRTTTGLDFNRASLIMA  336
NTDB id 204 SPR RS00140 WP 074017595.1     NRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTMFGNAKRTTTGLDFNRASLIMA  336
NTDB id 169 SP RS00155 WP 074017595.1      NRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTMFGNAKRTTTGLDFNRASLIMA  336
NTDB id 509 SM12261 RS00130 WP 078228442.1 NRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTMFGNAKRTTTGLDFNRASLIMA  336
NTDB id 537 SMSK321 RS07120 WP 080550752.1 NRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTMFGNAKRTTTGLDFNRASLIMA  336
consensus                                  !!!!!!!!*!*!!!***!!*!!*!!!**!!!!!*****!!*!***!!!!!!!!*!*!!!*****!!!**!**!!*!*!!*!!*!!
```

```
logo                                

NTDB id 125 BSU 00870 NP 387968.1   VLEKRVGLLLQNQDAYLKVAGGVKLDEPAIDLAIVISIASSFRDTPPNPADCFIGEVGLTGEVRRVSRIEQRVKEAAKLGFKRMI  425
NTDB id 211633 PL11 RS07615 WP 035167602.1 VLEKRAGLMLQNQDAYLKAAGGVKLDEPAIDLAIAVSIASSYKNKGTNPTECFVGELGLTGEVRRVTRIEQRVQEAQKLGFTRII  424
NTDB id 279 KZH43 RS00140 WP 074017595.1 VLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGLTGEIRRVNRIEQRINEAAKLGFTKIY  421
NTDB id 238 SPD RS00140 WP 074017595.1 VLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGLTGEIRRVNRIEQRINEAAKLGFTKIY  421
NTDB id 204 SPR RS00140 WP 074017595.1 VLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGLTGEIRRVNRIEQRINEAAKLGFTKIY  421
NTDB id 169 SP RS00155 WP 074017595.1 VLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGLTGEIRRVNRIEQRINEAAKLGFTKIY  421
NTDB id 509 SM12261 RS00130 WP 078228442.1 VLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGLTGEIRRVNRIEQRINEAAKLGFTKIY  421
NTDB id 537 SMSK321 RS07120 WP 080550752.1 VLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGLTGEIRRVNRIEQRINEAAKLGFTKIY  421
consensus                           !!!!!*!!*!!!!!!!!!!*!!!!!!!!!!!!!!!!!****!!!!******!!**!!*!!*!!!!!*!!!*!!!!!**!!*!!!!****

logo                                

NTDB id 125 BSU 00870 NP 387968.1   IPAANLDGWTKPKGIEVIGVANVAEALRTSLGG   458
NTDB id 211633 PL11 RS07615 WP 035167602.1 VPSNNLAGWTAPEGIEVVGVKTLAQALKVALG.   456
NTDB id 279 KZH43 RS00140 WP 074017595.1 VPKNSLTGITLPKEIQVIGVTTIQEVLKKVFA.   453
NTDB id 238 SPD RS00140 WP 074017595.1 VPKNSLTGITLPKEIQVIGVTTIQEVLKKVFA.   453
NTDB id 204 SPR RS00140 WP 074017595.1 VPKNSLTGITLPKEIQVIGVTTIQEVLKKVFA.   453
NTDB id 169 SP RS00155 WP 074017595.1 VPKNSLTGITLPKEIQVIGVTTIQEVLKKVFA.   453
NTDB id 509 SM12261 RS00130 WP 078228442.1 VPKNSLTGITPPKEIQVIGVTTIQEVLKKVFA.   453
NTDB id 537 SMSK321 RS07120 WP 080550752.1 VPKNSLTGITPPMEIQVIGVTTIQEVLKKVFA.   453
consensus                           *!***!*!*!  !**!*!*!!******!*****
```

X non conserved

X similar

X ≥ 50% conserved