logo



```
NTDB id 182664 A214 RS09845 WP 003094867.1  MAKAKRMYGCTECGATFPKWAGQCADCGAWNTLVETVVEAAPSGSGRGGWAGQ...QANLKTLAEVSVEEMPRFTTGSTELDRVL  82
NTDB id 125 BSU 00870 NP 387968.1           MAKTKSKFICQSCGYESPKWMGKCPGCGAWNTMVEEMIKKAPANRR.AAFSHSVQTVQKPSPITSIETSEEPRVKTQLGEFNRVL  84
NTDB id 279 KZH43 RS00140 WP 074017595.1    MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEVAEVKNAR.VSLTGE...KTKPMKLAEVTSINVNRTKTEMEEFNRVL  81
NTDB id 238 SPD RS00140 WP 074017595.1      MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEVAEVKNAR.VSLTGE...KTKPMKLAEVTSINVNRTKTEMEEFNRVL  81
NTDB id 204 SPR RS00140 WP 074017595.1      MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEVAEVKNAR.VSLTGE...KTKPMKLAEVTSINVNRTKTEMEEFNRVL  81
NTDB id 169 SP RS00155 WP 074017595.1       MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEVAEVKNAR.VSLTGE...KTKPMKLAEVTSINVNRTKTEMEEFNRVL  81
NTDB id 537 SMSK321 RS07120 WP 080550752.1  MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEVAEVKNAR.VSLTGE...KTKPMKLAEVTSINVNRTKTEMEEFNRVL  81
NTDB id 509 SM12261 RS00130 WP 078228442.1  MAKKKATFVCQNCGYNSPKYLGRCPNCGSWSSFVEEVEVAEVKNAR.VSLTGE...KTKPMKLAEVTSINVNRTKTEMEEFNRVL  81
consensus                                   !!!*!****!**!!***!!**!*!**!!*!***!!***********  ******  ****************!**!***!**!!!
```

logo



```
NTDB id 182664 A214 RS09845 WP 003094867.1  GGGLVDGSVVLIGGDPGIGKSTILLQTLCNLASR.VPALYVTGEESQQQVAMRARRLSLPEDKLKVMTETSIETIIATARQEQPR  166
NTDB id 125 BSU 00870 NP 387968.1           GGGVVKGSLVLIGGDPGIGKSTLLLQVSAQLSGSSNSVLYISGEESVKQTKLRADRLGINNPSLHVLSETDMEYISSAIQEMNPS  169
NTDB id 279 KZH43 RS00140 WP 074017595.1    GGGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQV.GTVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSVRAEVERIQPD  165
NTDB id 238 SPD RS00140 WP 074017595.1      GGGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQV.GTVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSVRAEVERIQPD  165
NTDB id 204 SPR RS00140 WP 074017595.1      GGGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQV.GTVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSVRAEVERIQPD  165
NTDB id 169 SP RS00155 WP 074017595.1       GGGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQV.GTVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSVRAEVERIQPD  165
NTDB id 537 SMSK321 RS07120 WP 080550752.1  GGGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQV.GTVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSVRAEVERIQPD  165
NTDB id 509 SM12261 RS00130 WP 078228442.1  GGGVVPGSLVLIGGDPGIGKSTLLLQVSTQLSQV.GTVLYVSGEESAQQIKLRAERLGDIDSEFYLYAETNMQSVRTEVERIQPD  165
consensus                                   !!!*!*!!*!!!!!!!!!!!!!!!*!!!****!*** ***!!**!!!!**!***!!*!!***********!!************!*
```

logo



```
NTDB id 182664 A214 RS09845 WP 003094867.1  VMVIDSIQTIFTEQLQSAPGGVAQVRESAAMLVRYAKQSGTAIFLVGHVTKEGALAGPRVLEHMVDTVLYFEGESDGRLRLLRAV  251
NTDB id 125 BSU 00870 NP 387968.1           FVVVDSIQTVYQSDITSAPGSVSQVRECTAELMKIAKTKGIPIFIVGHVTKEGSIAGPRLLEHMVDTVLYFEGERHHTFRILRAV  254
NTDB id 279 KZH43 RS00140 WP 074017595.1    FLIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLYFEGERHHTFRILRAV  250
NTDB id 238 SPD RS00140 WP 074017595.1      FLIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLYFEGERHHTFRILRAV  250
NTDB id 204 SPR RS00140 WP 074017595.1      FLIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLYFEGERHHTFRILRAV  250
NTDB id 169 SP RS00155 WP 074017595.1       FLIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLYFEGERHHTFRILRAV  250
NTDB id 537 SMSK321 RS07120 WP 080550752.1  FLIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLYFEGERHHTFRILRAV  250
NTDB id 509 SM12261 RS00130 WP 078228442.1  FLIIDSIQTIMSPEISGVQGSVSQVREVTAELMQLAKTNNIAIFIVGHVTKEGTLAGPRMLEHMVDTVLYFEGERHHTFRILRAV  250
consensus                                   ****!!!!!**********!*!*!!!!**!*!***!!*****!!*!!!!!!!!**!!!!*!!!!!!!!!!!!!!*****!*!!!!
```

logo



```
NTDB id 182664 A214 RS09845 WP 003094867.1  KNRFGAVNELGVFGMTDKGLKEVSNPSAIFLTRAQEAVPGSVVMATWEGSRPMLVEVQALVDTSHLANPRRVTLGLDQNRLAMLL  336
NTDB id 125 BSU 00870 NP 387968.1           KNRFGSTNEMGIFEMREEGLTEVLNPSEIFLEERSAGSAGSSITASMEGTRPILVEIQALISPTSFGNPRRMATGIDHNRVSLLM  339
NTDB id 279 KZH43 RS00140 WP 074017595.1    KNRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTMFGNAKRTTTGLDFNRASLIM  335
NTDB id 238 SPD RS00140 WP 074017595.1      KNRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTMFGNAKRTTTGLDFNRASLIM  335
NTDB id 204 SPR RS00140 WP 074017595.1      KNRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTMFGNAKRTTTGLDFNRASLIM  335
NTDB id 169 SP RS00155 WP 074017595.1       KNRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTMFGNAKRTTTGLDFNRASLIM  335
NTDB id 537 SMSK321 RS07120 WP 080550752.1  KNRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTMFGNAKRTTTGLDFNRASLIM  335
NTDB id 509 SM12261 RS00130 WP 078228442.1  KNRFGSTNEIGIFEMQSGGLVEVLNPSQVFLEERLDGATGSSIVVTMEGTRPILAEVQALVTPTMFGNAKRTTTGLDFNRASLIM  335
consensus                                   !!!!!**!!*!*!*!***!!*!!*!!!**!!*********!!******!!*!!*!*!*!!!*******!**!***!*!*!!*****
```

logo



```
NTDB id 182664 A214 RS09845 WP 003094867.1  AVLHRHGGIPTYDQDVFLNVVGGVKVLETASDLALMAAVMSSLRNRPLPHDLLVFGEVGLSGEVRPVPSGQERLKEAGKHGFKRA  421
NTDB id 125 BSU 00870 NP 387968.1           AVLEKRVGLLLQNQDAYLKVAGGVKLDEPAIDLAIVISIASSFRDTPPNPADCFIGEVGLTGEVRRVSRIEQRVKEAAKLGFKRM  424
NTDB id 279 KZH43 RS00140 WP 074017595.1    AVLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGLTGEIRRVNRIEQRINEAAKLGFTKI  420
NTDB id 238 SPD RS00140 WP 074017595.1      AVLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGLTGEIRRVNRIEQRINEAAKLGFTKI  420
NTDB id 204 SPR RS00140 WP 074017595.1      AVLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGLTGEIRRVNRIEQRINEAAKLGFTKI  420
NTDB id 169 SP RS00155 WP 074017595.1       AVLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGLTGEIRRVNRIEQRINEAAKLGFTKI  420
NTDB id 537 SMSK321 RS07120 WP 080550752.1  AVLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGLTGEIRRVNRIEQRINEAAKLGFTKI  420
NTDB id 509 SM12261 RS00130 WP 078228442.1  AVLEKRAGLLLQNQDAYLKSAGGVKLDEPAIDLAVAVAIASSYKDKPTNPQECFVGELGLTGEIRRVNRIEQRINEAAKLGFTKI  420
consensus                                   !!!******!*****!!**!**!!!!!**!*!*!!!*******!!****!********!!*!!*!!*!*!*****!**!!*!*!!***
```

logo



```
NTDB id 182664 A214 RS09845 WP 003094867.1  IVPLGNAP.KEAPAGLQVIAVTRLEQALDALFE.  453
NTDB id 125 BSU 00870 NP 387968.1           IIPAANLDGWTKPKGIEVIGVANVAEALRTSLGG  458
NTDB id 279 KZH43 RS00140 WP 074017595.1    YVPKNSLTGITLPKEIQVIGVTTIQEVLKKVFA.  453
NTDB id 238 SPD RS00140 WP 074017595.1      YVPKNSLTGITLPKEIQVIGVTTIQEVLKKVFA.  453
NTDB id 204 SPR RS00140 WP 074017595.1      YVPKNSLTGITLPKEIQVIGVTTIQEVLKKVFA.  453
NTDB id 169 SP RS00155 WP 074017595.1       YVPKNSLTGITLPKEIQVIGVTTIQEVLKKVFA.  453
NTDB id 537 SMSK321 RS07120 WP 080550752.1  YVPKNSLTGITPPMEIQVIGVTTIQEVLKKVFA.  453
NTDB id 509 SM12261 RS00130 WP 078228442.1  YVPKNSLTGITPPKEIQVIGVTTIQEVLKKVFA.  453
consensus                                   **!*********  !****!!*!******!*****
```

X non conserved

X similar

X ≥50% conserved