```
logo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 966078 NSQ79 RS01430 WP 164332310.1  .....MSKYPYISQIDQRDCGVAALAMILKHYGSSYSLA   34
NTDB id 358 SMU RS01425 WP 002263523.1       MKQVIYVVLIVIAVNILLEIIKRVTKRGGTVSSSNPLPDGQSKLFWRRHYKLVPQIDTRDCGPAVLASVAKHYGSNYSIA   80
NTDB id 421 SGO RS10260 WP 012131060.1       .....MKFRKQHY..RAQVDTRDCGVAALAMIFGYYGSYFSLA   36
NTDB id 511 SMSK321 RS10730 WP 000668322.1   .....MKFGKRHY..RPQVDQMDCGVASLAMVFGYYGSYYSLA   36
NTDB id 483 SM12261 RS00275 WP 000668315.1   .....MKFGKRHY..RPQVDQMDCGVASLAMVFGYYGSYYSLA   36
NTDB id 247 KZH43 RS00220 WP 000668290.1     .....MKFGKRHY..RPQVDQMDCGVASLAMVFGYYGSYYFLA   36
NTDB id 206 SPD RS00235 WP 000668290.1       .....MKFGKRHY..RPQVDQMDCGVASLAMVFGYYGSYYFLA   36
NTDB id 171 SPR RS00230 WP 000668290.1       .....MKFGKRHY..RPQVDQMDCGVASLAMVFGYYGSYYFLA   36
NTDB id 131 SP RS00255 WP 000668284.1        .....MKFGKRHY..RPQVDQMDCGVASLAMVFGYYGSYYFLA   36
consensus                                    *******!  **!*!**!!!*!*!!*****!!!****!

logo

NTDB id 966078 NSQ79 RS01430 WP 164332310.1  YLRELAQTSREGTSALGLVEVAKQLGLETQAIRADLDLFKQESLSYPFIAHVVKEGGLQHYYTVFGQIKGKLVIGDPDPS  114
NTDB id 358 SMU RS01425 WP 002263523.1       YLRELSKTNKQGTTALGIVEAAKKLGFETRSIKADMTLFDYNDLTYPFIVHVIKGKRLQHYYVVYGSQNNQLIIGDPDPS  160
NTDB id 421 SGO RS10260 WP 012131060.1       TLREKAKTTNDGTTALGLVKVAEGLNFETRAFKADMSLFDLEEVSYPFIAHILKDGKLLHYYVVTGQDKHTIHIADPDPQ  116
NTDB id 511 SMSK321 RS10730 WP 000668322.1   HLRELAKTTMDGTTALGLVKVAEEIGFETRAIKADMTLFDLPDLTFPFVAHVLKEGKLLHYYVVTGQDKGSIHIADPDPG  116
NTDB id 483 SM12261 RS00275 WP 000668315.1   HLRELAKTTMDGTTALGLVKVAEEIGFETRAIKADMTLFDLPDLTFPFVAHVLKEGKLLHYYVVTGQDKDSIHIADPDPG  116
NTDB id 247 KZH43 RS00220 WP 000668290.1     HLRELAKTTMDGTTALGLVKVAEEIGFETRAIKADMTLFDLPDLTFPFVAHVLKEGKLLHYYVVTGQDKDSIHIADPDPG  116
NTDB id 206 SPD RS00235 WP 000668290.1       HLRELAKTTMDGTTALGLVKVAEEIGFETRAIKADMTLFDLPDLTFPFVAHVLKEGKLLHYYVVTGQDKDSIHIADPDPG  116
NTDB id 171 SPR RS00230 WP 000668290.1       HLRELAKTTMDGTTALGLVKVAEEIGFETRAIKADMTLFDLPDLTFPFVAHVLKEGKLLHYYVVTGQDKDSIHIADPDPG  116
NTDB id 131 SP RS00255 WP 000668284.1        HLRELAKTTMDGTTALGLVKVAEEIGFETRAIKADMTLFDLPDLTFPFVAHVLKEGKLLHYYVVTGQDKDSIHIADPDPG  116
consensus                                    *!!!***!***!!*!!!*!**!*****!!****!!**!!*******!!**!**!***!*!!!*!*!*******!*!!!!*

logo

NTDB id 966078 NSQ79 RS01430 WP 164332310.1  KKVIKMPLEEFAKEWTGVALFFVPGETYTKYKEDVPGLLSFLPILFRRKGLIAVIVLLSFLVTLVNIIGSYYLQSIIDRL  194
NTDB id 358 SMU RS01425 WP 002263523.1       VKVTRMSKERFQSEWTGLAIFLAPQPNYKPHKGEKNGLSNFFPLIFKQKALMTYIIIASLIVTLIDIVGSYYLQGILDEY  240
NTDB id 421 SGO RS10260 WP 012131060.1       VKMTKISRERFEQEWTGITIFLAPSPAYKPSQEKKNGLLDFIPLLIKQKGLITNIVLATLLVTLINIVGSYYLQSIIDTY  196
NTDB id 511 SMSK321 RS10730 WP 000668322.1   VKLTKLPRERFAEEWTGVTLFMAPSPDYKPHKDQKNGLLSFIPILVKQRGLIANIVLATLLVTVINIVGSYYLQSIIDTY  196
NTDB id 483 SM12261 RS00275 WP 000668315.1   VKLTKLPRERFAEEWTGVTLFMAPSPDYKPHKDQKNGLLSFIPILVKQRGLIANIVLATLLVTLINIVGSYYLQSIIDTY  196
NTDB id 247 KZH43 RS00220 WP 000668290.1     VKLTKLPRERFEEEWTGVTLFMAPSPDYKPHKEQKNGLLSFIPILVKQRGLIANIVLATLLVTVINIVGSYYLQSIIDTY  196
NTDB id 206 SPD RS00235 WP 000668290.1       VKLTKLPRERFEEEWTGVTLFMAPSPDYKPHKEQKNGLLSFIPILVKQRGLIANIVLATLLVTVINIVGSYYLQSIIDTY  196
NTDB id 171 SPR RS00230 WP 000668290.1       VKLTKLPRERFEEEWTGVTLFMAPSPDYKPHKEQKNGLLSFIPILVKQRGLIANIVLATLLVTVINIVGSYYLQSIIDTY  196
NTDB id 131 SP RS00255 WP 000668284.1        VKLTKLPRERFEEEWTGVTLFMAPSPDYKPHKEQKNGLLSFIPILVKQRGLIANIVLATLLVTVINIVGSYYLQSIIDTY  196
consensus                                    *!******!*!**!!!!***!**!***!********!!**!*!*******!***!******!!***!*!!!!!!*!*!**

logo

NTDB id 966078 NSQ79 RS01430 WP 164332310.1  IPQEAYTLLTMISLGLCISYLAQQVFTFFKDYLLHRLGNYLSIAVILPYIKHVLSLPISFFSSRRTGEITSRFGDANTII  274
NTDB id 358 SMU RS01425 WP 002263523.1       IPDQLISTLGMITIGLIITYIIQQVMAFAKEYLLAVLSLRLVIDVILSYIKHIFTLPMSFFATRRTGEITSRFTDANQII  320
NTDB id 421 SGO RS10260 WP 012131060.1       VPDHMKTTLGMISIGLIIVYILQQFLSYAQEYLLLVLGQRLSIDVILSYIKHVFQLPMSFFATRRTGEIVSRFTDANRII  276
NTDB id 511 SMSK321 RS10730 WP 000668322.1   VPDQMRSTLGIISIGLVIVYILQQILSYAQEYLLLVLGQRLSIDVILSYIKHVFHLPMSFFATRRTGEIVSRFTDANSII  276
NTDB id 483 SM12261 RS00275 WP 000668315.1   VPDQMRSTLGIISIGLVIVYILQQILSYAQEYLLLVLGQRLSIDVILSYIKHVFHLPMSFFATRRTGEIVSRFTDANSII  276
NTDB id 247 KZH43 RS00220 WP 000668290.1     VPDQMRSTLGIISIGLVIVYILQQILSYAQEYLLLVLGQRLSIDVILSYIKHVFHLPMSFFATRRTGEIVSRFTDANSII  276
NTDB id 206 SPD RS00235 WP 000668290.1       VPDQMRSTLGIISIGLVIVYILQQILSYAQEYLLLVLGQRLSIDVILSYIKHVFHLPMSFFATRRTGEIVSRFTDANSII  276
NTDB id 171 SPR RS00230 WP 000668290.1       VPDQMRSTLGIISIGLVIVYILQQILSYAQEYLLLVLGQRLSIDVILSYIKHVFHLPMSFFATRRTGEIVSRFTDANSII  276
NTDB id 131 SP RS00255 WP 000668284.1        VPDQMRSTLGIISIGLVIVYIFQQILSYAQEYLLLVLGQRLSIDVILSYIKHVFHLPMSFFATRRTGEIVSRFTDANSII  276
consensus                                    *!******!**!**!!*!*!**!!*******!!!**!***!*!*!!!*!!!!***!!*!!!**!!!!!!*!!!*!!!*!!
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logo
NTDB id 966078 NSQ79 RS01430 WP 164332310.1   DALASTILSIFLDVSTVVIISLVLFSQNTNLFFMTLLALPIYTVIIFAFMKPFEKMNRDTMEANAVLSSSIIEDINGIET
NTDB id 358 SMU RS01425 WP 002263523.1        DAVASTIFSIFLDMTMVMILVGGVLLAQNNNLFFLTLLSIPIYAIIIFAFLKPFEKMNHEVMESNAVVSSSIIEDINGMET
NTDB id 421 SGO RS10260 WP 012131060.1        DALASTILSIFLDVSIVSIIAIVLFSQNSSLFFLTLLGIPVYALIIFLFMKPFEKMNHETMEANSLLSSSIIEDINGIET
NTDB id 511 SMSK321 RS10730 WP 000668322.1    DALASTILSIFLDVSTVVIISLVLFSQNTNLFFMTLLALPIYTVIIFAFMKPFEKMNRDTMEANAVLSSSIIEDINGIET
NTDB id 483 SM12261 RS00275 WP 000668315.1    DALASTILSIFLDVSTVVIISLVLFSQNTNLFFITLLALPIYTVIIFAFMKPFEKMNRDTMEANAVLSSSIIEDINGIET
NTDB id 247 KZH43 RS00220 WP 000668290.1      DALASTILSIFLDVSTVVIISLVLFSQNTNLFFMTLLALPIYTVIIFAFMKPFEKMNRDTMEANAVLSSSIIEDINGIET
NTDB id 206 SPD RS00235 WP 000668290.1        DALASTILSIFLDVSTVVIISLVLFSQNTNLFFMTLLALPIYTVIIFAFMKPFEKMNRDTMEANAVLSSSIIEDINGIET
NTDB id 171 SPR RS00230 WP 000668290.1        DALASTILSIFLDVSTVVIISLVLFSQNTNLFFMTLLALPIYTVIIFAFMKPFEKMNRDTMEANAVLSSSIIEDINGIET
NTDB id 131 SP RS00255 WP 000668284.1         DALASTILSIFLDVSTVVIISLVLFSQNTNLFFMTLLALPIYTVIIFAFMKPFEKMNRDTMEANAVLSSSIIEDINGIET
consensus                                     !!*!!!!*!!!!!***!******!**!!**!!**!!***!*!**!!**!*!*!!!*!***!!*!*******!*!**!*!!

logo
NTDB id 966078 NSQ79 RS01430 WP 164332310.1   LKSLRVEERRYQEIEVKFHDYLKKSLSKAKWQLTQDGLKTGVQLVSNVFILWYGAQLVMEGQLSAGQLITYNMLLNYFTT
NTDB id 358 SMU RS01425 WP 002263523.1        IKSLTSESARYQNIDSEFVDYLEKNFKLHKYSAIQTALKSGAKLILNVVILWYGSRLVMDNKISVGQLITFNALLSYFSN
NTDB id 421 SGO RS10260 WP 012131060.1        IKSLTSEKQRYQKIDKEFVTYLKKSFAYGRSESLQKVLKAAARLILNVLILWLGATLVMDQKISLGQLITYNTLLVYFTN
NTDB id 511 SMSK321 RS10730 WP 000668322.1    IKSLTSESQRYQKIDKEFVDYLKKSFTYSRAESQQKALKKVAHLLLNVGILWMGAVLVMDGKMSLGQLITYNTLLVYFTN
NTDB id 483 SM12261 RS00275 WP 000668315.1    IKSLTSESQRYQKIDKEFVDYLKKSFTYSRAESQQKALKKVAHLLLNVGILWMGAVLVMDGKMSLGQLITYNTLLVYFTN
NTDB id 247 KZH43 RS00220 WP 000668290.1      IKSLTSESQRYQKIDKEFVDYLKKSFTYSRAESQQKALKKVAHLLLNVGILWMGAVLVMDGKMSLGQLITYNTLLVYFTN
NTDB id 206 SPD RS00235 WP 000668290.1        IKSLTSESQRYQKIDKEFVDYLKKSFTYSRAESQQKALKKVAHLLLNVGILWMGAVLVMDGKMSLGQLITYNTLLVYFTN
NTDB id 171 SPR RS00230 WP 000668290.1        IKSLTSESQRYQKIDKEFVDYLKKSFTYSRAESQQKALKKVAHLLLNVGILWMGAVLVMDGKMSLGQLITYNTLLVYFTN
NTDB id 131 SP RS00255 WP 000668284.1         IKSLTSESQRYQKIDKEFVDYLKKSFTYSRAESQQKALKKVAHLLLNVGILWMGAVLVMDGKMSLGQLITYNTLLVYFTN
consensus                                     *!!!**!**!!!*!***!**!!*!**********!**!!****!**!!*!!!*!**!!!****!*!!!!!*!*!!*!!**

logo
NTDB id 966078 NSQ79 RS01430 WP 164332310.1   PLINIINLQSKIQQAKVANNRLQEVYVVDKE..EKGKLKELSFK..QLALKGVSHRFSYQQETLSKIDLTIHKGEKIALM
NTDB id 358 SMU RS01425 WP 002263523.1        PIENIINLQSKLQSARVANTRLNEVYLVESEFEKDGDLSENSFLDGDISFENLSYKYGFGRDTLSDINLSIKKGSKVSLV
NTDB id 421 SGO RS10260 WP 012131060.1        PLENIINLQTKLQSARVANERLNEVYLVKSEFEEKKLIKDLSHFQADIDFRGVSYKYGYGANVLSEIDLHIPAGSKTSFV
NTDB id 511 SMSK321 RS10730 WP 000668322.1    PLENIINLQTKLQTAQVANNRLNEVYLVTSEFEEKKTVEDLSLMKGEMTFKQVYYKYGYGRDVLSDINLTIPQGSKVAFV
NTDB id 483 SM12261 RS00275 WP 000668315.1    PLENIINLQTKLQTAQVANNRLNEVYLVASEFEEKKTVEDLSLMKGDMTFKQVSYKYGYGRDVLLDINLTIPQGSKVAFV
NTDB id 247 KZH43 RS00220 WP 000668290.1      PLENIINLQTKLQTAQVANNRLNEVYLVASEFEEKKTVEDLSLMKGDMTFKQVHYKYGYGRDVLSDINLTVPQGSKVAFV
NTDB id 206 SPD RS00235 WP 000668290.1        PLENIINLQTKLQTAQVANNRLNEVYLVASEFEEKKTVEDLSLMKGDMTFKQVHYKYGYGRDVLSDINLTVPQGSKVAFV
NTDB id 171 SPR RS00230 WP 000668290.1        PLENIINLQTKLQTAQVANNRLNEVYLVASEFEEKKTVEDLSLMKGDMTFKQVHYKYGYGRDVLSDINLTVPQGSKVAFV
NTDB id 131 SP RS00255 WP 000668284.1         PLENIINLQTKLQTAQVANNRLNEVYLVASEFEEKKTVEDLSLMKGDMTFKQVHYKYGYGRDVLSDINLTVPQGSKVAFV
consensus                                     !**!!!!!!*!*!*!*!!!*!!*!!!*!**!**********!***********  *********!**!*!****!*!****

logo
NTDB id 966078 NSQ79 RS01430 WP 164332310.1   GKSGSGKTTLAKMLSGYYTKSSGHVTLDK...DAISHAELRQMVTYVPQQTYVFTGTILENLLLGFEGEVDEKKLLKVCQ
NTDB id 358 SMU RS01425 WP 002263523.1        GASGSGKTTLAKLIVNFYEPNKGIVRINGNDLKVIDKTALRRHISYLPQQAYVFSGSIMDNLVLGAKEGTSQEDIRACE
NTDB id 421 SGO RS10260 WP 012131060.1        GVSGSGKTTLAKMMVHFYAPNQGDICLGGVNLNQLDKQALRQYINYLPQQPYVFNGTILENLLLGAREGTTQEDILRAVE
NTDB id 511 SMSK321 RS10730 WP 000668322.1    GISGSGKTTLAKMMVNFYDPSQGEISLGGVNLNQIDKKALRQYINYLPQQPYVFNGTILENLLLGAKEGTTQEDILRAVE
NTDB id 483 SM12261 RS00275 WP 000668315.1    GISGSGKTTLAKMMVNFYDPSQGEISLGGVNLNQIDKKALRQYINYLPQQPYVFNGTILDNLLLGAKEGTTQEDILRAVE
NTDB id 247 KZH43 RS00220 WP 000668290.1      GISGSGKTTLAKMMVNFYDPSQGEISLGGVNLNQIDKKALRQYINYLPQQPYVFNGTILENLLLGAKEGTTQEDILRAVE
NTDB id 206 SPD RS00235 WP 000668290.1        GISGSGKTTLAKMMVNFYDPSQGEISLGGVNLNQIDKKALRQYINYLPQQPYVFNGTILENLLLGAKEGTTQEDILRAVE
NTDB id 171 SPR RS00230 WP 000668290.1        GISGSGKTTLAKMMVNFYDPSQGEISLGGVNLNQIDKKALRQYINYLPQQPYVFNGTILENLLLGAKEGTTQEDILRAVE
NTDB id 131 SP RS00255 WP 000668284.1         GISGSGKTTLAKMMVNFYDPSQGEISLGSVNLNQIDKKALRQYINYLSQQPYVFNGTILENLLLGAKEGTTQEDILRAVE
consensus                                     !*!!!!!!!!!!*****!****!***************!!****!**!!*!!!*!*!**!!*!!**************
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logo

NTDB id 966078 NSQ79 RS01430 WP 164332310.1  QADILEDIQKMPLGFQTQVSE.DGGLSGGQKQRLAIARALLSQQPILIFDEATSGLDSDTESRVMANLAKI.KRTMIFIA   665
NTDB id 358 SMU RS01425 WP 002263523.1       IAEIRSDIFQMPQGYQTEL.SDGAGISGGQKQRIALARALLTQAPVLILDEATSSLDILTEKKIISNLLQMTEKTIIFVA   719
NTDB id 421 SGO RS10260 WP 012131060.1       LAEIRSDIERMPLNYQTELSADGAGISGGQRQRIALARALLTDAPVLILDEATSSLDILTEKRIIDNLMVL.DKTIIFIA   675
NTDB id 511 SMSK321 RS10730 WP 000668322.1   LAEIREDIERMPLNYQTELTSDGAGISGGQRQRIALARALLTDAPILILDEATSSLDILTEKRIVDNLMAL.DKTLIFIA   675
NTDB id 483 SM12261 RS00275 WP 000668315.1   LAEIREDIERMPLNYQTELTSDGAGISGGQRQRIALARALLTDAPVLILDEATSSLDILTEKRIVDNLMAL.DKTLIFIA   675
NTDB id 247 KZH43 RS00220 WP 000668290.1     LAEIREDIERMPLNYQTELTSDGAGISGGQRQRIALARALLTDAPVLILDEATSSLDILTEKRIVDNLIAL.DKTLIFIA   675
NTDB id 206 SPD RS00235 WP 000668290.1       LAEIREDIERMPLNYQTELTSDGAGISGGQRQRIALARALLTDAPVLILDEATSSLDILTEKRIVDNLIAL.DKTLIFIA   675
NTDB id 171 SPR RS00230 WP 000668290.1       LAEIREDIERMPLNYQTELTSDGAGISGGQRQRIALARALLTDAPVLILDEATSSLDILTEKRIVDNLIAL.DKTLIFIA   675
NTDB id 131 SP RS00255 WP 000668284.1        LAEIREDIERMPLNYQTELTSDGAGISGGQRQRIALARALLTDAPVLILDEATSSLDILTEKRIVDNLIAL.DKTLIFIA   675
consensus                                    *!*!**!!**!!***!!*******!*!!!!*!!*!*!!!!!***!*!!*!!!!!*!!**!!*****!!***  **!*!!*!
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logo

NTDB id 966078 NSQ79 RS01430 WP 164332310.1  HRNSVRQHVGRVVTMVSGQIESDSPNFNPFQF...I......   698
NTDB id 358 SMU RS01425 WP 002263523.1       HRLSISQRTDEVIVMDQGKIVEQGTHKELLAKQGFYYNLFN.   760
NTDB id 421 SGO RS10260 WP 012131060.1       HRLTIAERSEQVVVLDQGRIVESGSHKELIEREGFYHHLVNS   717
NTDB id 511 SMSK321 RS10730 WP 000668322.1   HRLTIAERTEKVVVLNQGKIVEEGKHADLLAQGGFYAHLVNS   717
NTDB id 483 SM12261 RS00275 WP 000668315.1   HRLTIAERTEKVVVLDQGKIVEEGNHADLLAQGGFYAHLVNS   717
NTDB id 247 KZH43 RS00220 WP 000668290.1     HRLTIAERTEKVVVLDQGKIVEEGKHADLLAQGGFYAHLVNS   717
NTDB id 206 SPD RS00235 WP 000668290.1       HRLTIAERTEKVVVLDQGKIVEEGKHADLLAQGGFYAHLVNS   717
NTDB id 171 SPR RS00230 WP 000668290.1       HRLTIAERTEKVVVLDQGKIVEEGKHADLLAQGGFYAHLVNS   717
NTDB id 131 SP RS00255 WP 000668284.1        HRLTIAERTEKVVVLDQGKIVEEGKHADLLAQGGFYAHLVNS   717
consensus                                    !!*********!*****!*!*********************
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X non conserved

X similar

X $\geq$ 50% conserved