```
logo
NTDB id 598 KW2 RS08500 WP 021037660.1      MRTAIDENNKIINLLELDRKELTGKFYCPSCHSELLIKNGQIKVLHFAHKSLKSCNLWLENESEQHLGLKKILYQWFKRT   80
NTDB id 140507 CUGBS98 RS04020 WP 000903642.1 MLIAKDKQGNLINLLES..HPGKGQYFCPTCCSAVRLKAGRIMRRHFAHISLKNCQFYHENESNEHLQLKAKLYMSLSRE   78
NTDB id 155 SP RS04850 WP 000495909.1       MFVARDARGELVNVLED..KLEKQAYTCPACGGQLHLRQGPSVRTHFAHKSLKDCDFFFENESPEHLANKESLYHWLKKE   78
NTDB id 265 KZH43 RS04315 WP 000495911.1    MFVARDARGELVNVLED..KLEKQAYTCPACGGQLHLRQGPSVRTHFAHKSLKDCDFFFENESPEHLANKESLYHWLKKE   78
NTDB id 224 SPD RS04655 WP 000495911.1      MFVARDARGELVNVLED..KLEKQAYTCPACGGQLHLRQGPSVRTHFAHKSLKDCDFFFENESPEHLANKESLYHWLKKE   78
NTDB id 190 SPR RS04415 WP 000495911.1      MFVARDARGELVNVLED..KLEKQAYTCPACGGQLHLRQGPSVRTHFAHKSLKDCDFFFENESPEHLANKESLYHWLKKE   78
NTDB id 495 SM12261 RS04415 WP 000495920.1  MFVARDSRGELVNVLED..KLEKQAYTCPACGGQLRLRQGPSVRIHFAHKTLKDCDFSSENESPEHLENKEVLYHWLKKE   78
consensus                                   !**!*!******!*!!*   ********!!*!********!*****!!!!**!!*!****!!!!**!!**!**!!******
```

```
logo
NTDB id 598 KW2 RS08500 WP 021037660.1      DKVEIERYLPELNQRPDLLVNDKIAIEIQCSHLSIKRLKERTENYKTHGFKVLWLMGKDLWLAEQVTELQKNLVYFSENR  160
NTDB id 140507 CUGBS98 RS04020 WP 000903642.1 NETMLEHHLPEINQIADLFVNETLALEVQCSRLSEQRLRERTKAYLQADFQVRWLLGEKLWLKHRLTNLHKQFLQFSQSI  158
NTDB id 155 SP RS04850 WP 000495909.1       TKVQLEYPLSELKQIADVFVNGNLALEVQCSPLPQKVLKERSEGYRSQGYQVLWLLGQKLWLKERLTRLQQGFLYFSQNM  158
NTDB id 265 KZH43 RS04315 WP 000495911.1    TKVQLEYPLSELKQIADVFVNGNLALEVQCSPLPQKVLKERSEGYRSQGYQVLWLLGQKLWLKERLTRLQQGFLYFSQNM  158
NTDB id 224 SPD RS04655 WP 000495911.1      TKVQLEYPLSELKQIADVFVNGNLALEVQCSPLPQKVLKERSEGYRSQGYQVLWLLGQKLWLKERLTRLQQGFLYFSQNM  158
NTDB id 190 SPR RS04415 WP 000495911.1      TKVQLEYPLSELKQIADVFVNGNLALEVQCSPLPQKVLKERSEGYRSQGYQVLWLLGQKLWLKERLTRLQQGFLYFSQNM  158
NTDB id 495 SM12261 RS04415 WP 000495920.1  AEVQLEYLLPELKQIADVFVNGNLALEVQCSPLPQKVLKERSEGYRSQGYQVLWLLGKKLWLKERLTRLQQGFLYFSQNM  158
consensus                                   *****!**!*!**!**!**!!***!*!*!!!*!****!*!!***!******!*!!*!**!!!****!*!*******!!***
```

```
logo
NTDB id 598 KW2 RS08500 WP 021037660.1      GFFYWELDFQRKKLRLKSLIHEDLRGRIICLQEEIPFGKGRLIAHLRLPYLAQKLVKIPTFKDSKLSSFIRQQLYYQSPK  240
NTDB id 140507 CUGBS98 RS04020 WP 000903642.1 GFHIWELDLRLEVLRLKYLIYEDLRGHVYYLSKTCPL.SGDVLAFLKWPYQSKNLNFYKVKQDRNIRDYVRQQLRYGNQF  237
NTDB id 155 SP RS04850 WP 000495909.1       GFYVWELDKEKQVLRLKYLIYQDLRGKLHYQIKEFSYGQGSLLEILRLPYKRQKISHFTVSEDKDICRYIRQQLYYQNLF  238
NTDB id 265 KZH43 RS04315 WP 000495911.1    GFYVWELDKGKQVLRLKYLIYQDLRGKLHYQIKEFSYGQGSLLEILRLPYKKQKISHFTVSEDKDICRYIRQQLYYQNLF  238
NTDB id 224 SPD RS04655 WP 000495911.1      GFYVWELDKGKQVLRLKYLIYQDLRGKLHYQIKEFSYGQGSLLEILRLPYKKQKISHFTVSEDKDICRYIRQQLYYQNLF  238
NTDB id 190 SPR RS04415 WP 000495911.1      GFYVWELDKGKQVLRLKYLIYQDLRGKLHYQIKEFSYGQGSLLEILRLPYKKQKISHFTVSEDKDICRYIRQQLYYQNLF  238
NTDB id 495 SM12261 RS04415 WP 000495920.1  GFYVWELDSEKQVLRLKYLIHQDLRGKLHYQIKEFPYGHGSLLEILRFPYKKQKISHFTVSQDKDICRYIRQQLYYQNPI  238
consensus                                   !!**!!!!* ***!!!!*!!**!!!!************!*****!**!!************!*******!!!!*!****
```

```
logo
NTDB id 598 KW2 RS08500 WP 021037660.1      WMKIQEKYYQKGENLLTKKFEGPYIAPLGLNLLENFTDEMTITTFTQIDQNVKLYYENFLINFQRN...SLEMLYPPRSY  317
NTDB id 140507 CUGBS98 RS04020 WP 000903642.1 WLRKQEKAYLSGQNLLTQELMMFFPQI.........QPPRVDTDFCQITNSLTSFYQNFTNYYQKNKNNLDQTLYPPVFY  308
NTDB id 155 SP RS04850 WP 000495909.1       WMKEQAEAYQKGENILTYGLKEWYPQI.........RPI..VGKFFQIEQDLTSYYQHFYTYYQKNPQNDWQKLYPPAFY  307
NTDB id 265 KZH43 RS04315 WP 000495911.1    WMKEQAEAYQKGENILTYGLKEWYPQI.........RPI..VGKFFQIEQDLTSYYQHFYTYYQKNPQNDWQKLYPPAFY  307
NTDB id 224 SPD RS04655 WP 000495911.1      WMKEQAEAYQKGENILTYGLKEWYPQI.........RPI..VGKFFQIEQDLTSYYQHFYTYYQKNPQNDWQKLYPPAFY  307
NTDB id 190 SPR RS04415 WP 000495911.1      WMKEQAEAYQKGENILTYGLKEWYPQI.........RPI..VGKFFQIEQDLTSYYQHFYTYYQKNPQNDWQKLYPPAFY  307
NTDB id 495 SM12261 RS04415 WP 000495920.1  WMKEQAEAYKKGENLLTYGLKEWYPQI.........RPL..VGNFCQIEQDLIRYYLYFQTYYQENPQNDWQMLYPPAFY  307
consensus                                   !***!***!**!*!*!!**********         ***  ***!*!!*******!**!****!*!******!!!!*!
```

```
logo                                                QQYFLKNMVE
                                                    DKMVTKQKKER
NTDB id 598 KW2 RS08500 WP 021037660.1              AIMGKQKKEK   327
NTDB id 140507 CUGBS98 RS04020 WP 000903642.1       DKIVTKN...   315
NTDB id 155 SP RS04850 WP 000495909.1               QQYFLKNMVE   317
NTDB id 265 KZH43 RS04315 WP 000495911.1            QQYFLKNMVE   317
NTDB id 224 SPD RS04655 WP 000495911.1              QQYFLKNMVE   317
NTDB id 190 SPR RS04415 WP 000495911.1              QQYFLKNMVE   317
NTDB id 495 SM12261 RS04415 WP 000495920.1          QQYFLKNMVE   317
consensus                                           **********
```

X non conserved
X similar
X $\geq$ 50% conserved