```
logo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 1374 NTHI RS02640 WP 011272045.1      ....................................................MNFFNFRCIHCRGNLHI...    17
NTDB id 1348 HI 0434 AAC22093.1               ....................................................MMNFFNFRCIHCRGNLHI...    18
NTDB id 1398 DSB67 RS00645 WP 029388870.1     ..................................................MLSHQWQNIMHRVLSSQCGLCRFPIPHRQT    30
NTDB id 186746 VSVS12 RS01540 WP 065429643.1  ..............................................................................     0
NTDB id 1154 A1552VC RS20525 WP 001884047.1   MPQPCTNTRSCPCPLTCQYNAMVTVSPSISIFIHSANWQDEAHYPDSWLAMLTHWLRKTTAPLLTPECHLCRLALDTNS.    79
consensus                                                                                                                  *  **  *
```

```
logo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 1374 NTHI RS02640 WP 011272045.1      .AKNGLCSGCQKQIKSFPYCGHCGAELQ....YYAQHCGNCLKQEPSWDKMVIIGHYIEPLSILIHRFKFQNQFWIDRTL    92
NTDB id 1348 HI 0434 AAC22093.1               .AKNGLCSGCQKQIKSFPYCGHCGSELQ....YYAQHCGNCLKQEPSWDKMVIIGHYIEPLSILIQRFKFQNQFWIDRTL    93
NTDB id 1398 DSB67 RS00645 WP 029388870.1     PNLMRWCDSCFDHLTPIERCMRCGLKMTEEESQAATECGECLKEPPPWRRLYTLGDYDFPLSQQVQRFKDHGEVWHVGAL   110
NTDB id 186746 VSVS12 RS01540 WP 065429643.1  ........................MTTL....HPVAQCGHCLSQPPAWRQLYCVGDYTPPLSDYVQQLKFARQLHYVEVL    52
NTDB id 1154 A1552VC RS20525 WP 001884047.1   ..PFGVCSACQAWLEHGYRCARCGLPTL....TPVDQCGQCLGQPPPWRKLMCVGDYRFPLSDAVHQLKYQRQFWQAPRL   153
consensus                                        *******  *     **  ***  *        *  !!*!!***! !**** *!*!  !!!  ****!** ***    !
```

```
logo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 1374 NTHI RS02640 WP 011272045.1      ARLLYLAVRDAKRTHQLKLPEAIIPVPLYHFRQWRRGYNQADLLSRQLSRWLDIPNLSNIVKRVKHTYTQRGLSAKDRRQ   172
NTDB id 1348 HI 0434 AAC22093.1               ARLLYLAVRDAKRTHQLKLPEAIIPVPLYHFRQWRRGYNQADLLSQQLSRWLDIPNLNNIVKRVKHTYTQRGLSAKDRRQ   173
NTDB id 1398 DSB67 RS00645 WP 029388870.1     TQLLAERVEQP........APVITSVPVHWQRLLKRGFNQSHILAKHLAHHLDVRYENKVFKRVKNVQSQRGNKKASREQ   182
NTDB id 186746 VSVS12 RS01540 WP 065429643.1  ADLLALQVQPN........IQMITYVPLHWHRQLWRGFNQSEFLARALAQRLGLPC.RALFKRTRATRSQRGMDRRQRQR   123
NTDB id 1154 A1552VC RS20525 WP 001884047.1   AKLLATQINEP........APLLCSVPLHWRRRWQRGFNQSDLLARELANMLNVEYDHQLFARRRATPHQQGLSKAQRIH   225
consensus                                     **!!** * *           **  !!*** !***!!*!!***!** !*  !***   ****!** * *!*!**** ! *
```

```
logo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 1374 NTHI RS02640 WP 011272045.1      NLKNAFSLVVSKNEFPYRRVALVDDVITTGSTLNEISKLLRKLGVEEIQVWGLARA........   228
NTDB id 1348 HI 0434 AAC22093.1               NLKNAFSLAVSKNEFPYRRVALVDDVITTGSTLNEISKLLRKLGVEEIQVWGLARA........   229
NTDB id 1398 DSB67 RS00645 WP 029388870.1     NLQGAFALRGEV.D..FSHVAIVDDVVTTGSTVRQLCHLLLEVGVESIDIYCICRTPAPGSL..   241
NTDB id 186746 VSVS12 RS01540 WP 065429643.1  NLRGAFTLTKGVTE..LQSVAIVDDVVTTGSTVQQLCKLLLDAGVKSVDIYCICRTPE......   179
NTDB id 1154 A1552VC RS20525 WP 001884047.1   NLRDAFVLNHPP.N..QPHVAIVDDVVTTGSTIRHLCDLLLDVGVQSIDIYCICRTPEPKDSHG   286
consensus                                     !!* !!*!     *  *  !!*!!!!*!!!!!** ***!!***!!*********!**
```

X non conserved

X similar

X ≥50% conserved