

[illegible]

|           |                                      |                     |                         |                             |                                   |                         |     |
|-----------|--------------------------------------|---------------------|-------------------------|-----------------------------|-----------------------------------|-------------------------|-----|
| NTDB id   | 602 KW2 RS03060 WP 011834647.1       | LAIVDTMNFIKS        | DVQTI VMGMAASMGTTIASSGT | TGKGRFMLPNAEYL              | IHQPMGGAGQG                       | TQTQTDMAIVAEQLLKTRKRLEQ | 155 |
| NTDB id   | 611 V4T04 RS07970 WP 003129593.1     | LAIVDTMNFIKS        | DVQTI VMGMAASMGTTIASSGT | TGKGRFMLPNAEYL              | IHQPMGGTGQG                       | TQTQTDMAIVAEQLLKTRKRLEQ | 155 |
| NTDB id   | 330 STU RS11365 WP 002949732.1       | LAIVDTMNFIKS        | DVQTI VMGMAASMGTTIASSGT | TGKGRFMLPNAEYMIHQPMGGTGGGT  | TQTQTDMAIAAAEHLLKTRNNLEQ          | 152                     |     |
| NTDB id   | 298 STER RS01925 WP 002949732.1      | LAIVDTMNFIKS        | DVQTI VMGMAASMGTTIASSGT | TGKGRFMLPNAEYMIHQPMGGTGGGT  | TQTQTDMAIAAAEHLLKTRNNLEQ          | 152                     |     |
| NTDB id   | 282 KZH43 RS03215 WP 000613477.1     | LAIVDTMNFIKA        | DVQTI VMGMAASMGTVIASSGA | KGGRFMLPNAEYMIHQPMGGTGGGT   | TQTQTDMAIAAAEHLLKTRNTLEK          | 152                     |     |
| NTDB id   | 246 SPD RS03495 WP 000613477.1       | LAIVDTMNFIKA        | DVQTI VMGMAASMGTVIASSGA | KGGRFMLPNAEYMIHQPMGGTGGGT   | TQTQTDMAIAAAEHLLKTRNTLEK          | 152                     |     |
| NTDB id   | 244 SPR RS03300 WP 000613477.1       | LAIVDTMNFIKA        | DVQTI VMGMAASMGTVIASSGA | KGGRFMLPNAEYMIHQPMGGTGGGT   | TQTQTDMAIAAAEHLLKTRNTLEK          | 152                     |     |
| NTDB id   | 242 SP RS03655 WP 000613477.1        | LAIVDTMNFIKA        | DVQTI VMGMAASMGTVIASSGA | KGGRFMLPNAEYMIHQPMGGTGGGT   | TQTQTDMAIAAAEHLLKTRNTLEK          | 152                     |     |
| NTDB id   | 446 SpyM6JRS4 RS01695 WP 002985850.1 | LAIVDTMNFIKA        | DVQTI VMGMAASMGTVIASSGT | TGKGRFMLPNAEYMIHQPMGGTGGGT  | TQTQTDMAIAAAEHLLKTRHRLK           | 152                     |     |
| NTDB id   | 445 SPYM3 RS01720 WP 002985850.1     | LAIVDTMNFIKA        | DVQTI VMGMAASMGTVIASSGT | TGKGRFMLPNAEYMIHQPMGGTGGGT  | TQTQTDMAIAAAEHLLKTRHRLK           | 152                     |     |
| NTDB id   | 376 SMU RS07595 WP 255262720.1       | LAIVDTMNFIKS        | DVQTI VMGTAASMGTTIASSGA | KGGRFMLPNAEYL               | IHQPMGGTGGGTQQSDMAIAAEQLLKTRKKLEK | 160                     |     |
| NTDB id   | 1223 Cj0192c YP 002343650.1          | FSIYDTMNVIKP        | DVCTICIGQAASMGAFLLSCGA  | EKGKFALPNSSRIMI HQPLGGARG.. | QATDIEIQAKEILRLKITLND             | 151                     |     |
| NTDB id   | 202474 BI197 RS15640 WP 003151513.1  | MAYIDTMCFIKPKVST    | TICIGMAASMGAFLLAAGEK    | GKGRYALPNSEVMIHQPLGGAQG..   | QATEIEIAAKRIILLRDKLNK             | 152                     |     |
| NTDB id   | 86 BSU 34540 NP 391334.1             | MAYIDTMCFIKPKVST    | TICIGMAASMGAFLLAAGEK    | GKGRYALPNSEVMIHQPLGGAQG..   | QATEIEIAAKRIILLRDKLNK             | 152                     |     |
| consensus |                                      | * * ! * ! * ! * ! * | * * ! * ! * ! * ! *     | * * ! * ! * ! * ! *         | * * ! * ! * ! * ! *               | * * ! * ! * ! * ! *     |     |

|                                              |                                                 |     |
|----------------------------------------------|-------------------------------------------------|-----|
| NTDB id 602 KW2 RS03060 WP 011834647.1       | ILADNSNRSLQIHKDAERDHWMDAKETLEYGFIDEIMENNSLK..   | 199 |
| NTDB id 611 V4T04 RS07970 WP 003129593.1     | ILADNSNRSLQIHKDAERDHWMDAKETLEYGFIDEIMENNSLK..   | 199 |
| NTDB id 330 STU RS11365 WP 002949732.1       | ILADNSGQPPIEKVHVDAERDNWMSAQETLEYGFIDEIMTNQLK..  | 196 |
| NTDB id 298 STER RS01925 WP 002949732.1      | ILADNSGQPPIEKVHVDAERDNWMSAQETLEYGFIDEIMTNQLK..  | 196 |
| NTDB id 282 KZH43 RS03215 WP 000613477.1     | ILAENSQGSMSEKVHADAERDNWMSAQETLEYGFIDEIMANNSLN.. | 196 |
| NTDB id 246 SPD RS03495 WP 000613477.1       | ILAENSQGSMSEKVHADAERDNWMSAQETLEYGFIDEIMANNSLN.. | 196 |
| NTDB id 244 SPR RS03300 WP 000613477.1       | ILAENSQGSMSEKVHADAERDNWMSAQETLEYGFIDEIMANNSLN.. | 196 |
| NTDB id 242 SP RS03655 WP 000613477.1        | ILAENSQGSMSEKVHADAERDNWMSAQETLEYGFIDEIMANNSLN.. | 196 |
| NTDB id 446 SpyM6JRS4 RS01695 WP 002985850.1 | ILAAQNAGKTIKQIHKAERDYWSAEETLAYGFIDEIMENNELK..   | 196 |
| NTDB id 445 SPYM3 RS01720 WP 002985850.1     | ILAAQNAGKTIKQIHKAERDYWSAEETLAYGFIDEIMENNELK..   | 196 |
| NTDB id 376 SMU RS07595 WP 255262720.1       | ILSDNSGKTIKQIHKAERDYWMDAKETLKYGFIDEIMENNELK..   | 204 |
| NTDB id 1223 Cj0192c YP 002343650.1          | ILAKNTIKKKVAIAKDTERDFFMASQAQEAKEYGLIDKVLKSFK... | 194 |
| NTDB id 202474 BI197 RS15640 WP 003151513.1  | VLAERTGGPLEVIERDTDRDNFKSADAEALEYGLIDKVLTRNTEDQK | 198 |
| NTDB id 86 BSU 34540 NP 391334.1             | VLAERTGGPLEVIERDTDRDNFKSADAEALEYGLIDKILTHTEDKK. | 197 |
| consensus                                    | *!***** **!*!!**!!*!!*!!*!!*!!*!!*!!*!!*!!*!!*  |     |

 non conserved  
 similar  
  $\geq 50\%$  conserved