

[illegible]

|           |       |           |         |             |             |                |                  |                                  |                            |                            |                       |                 |           |         |     |     |
|-----------|-------|-----------|---------|-------------|-------------|----------------|------------------|----------------------------------|----------------------------|----------------------------|-----------------------|-----------------|-----------|---------|-----|-----|
| NTDB id   | 602   | KW2       | RS03060 | WP          | 011834647.1 | LAIVDTMNF      | IKSDVQ           | TIVMGMAASMG                      | TTIASSGT                   | TGKGRFMLPNAEYL             | LIHQPMGGAGQG          | TQTQTDMAIVAEQ   | LLKTRKR   | LEQ     | 155 |     |
| NTDB id   | 611   | V4T04     | RS07970 | WP          | 003129593.1 | LAIVDTMNF      | IKSDVQ           | TIVMGMAASMG                      | TTIASSGT                   | TGKGRFMLPNAEYL             | LIHQPMGGTGQG          | TQTQTDMAIVAEQ   | LLKTRKR   | LEQ     | 155 |     |
| NTDB id   | 330   | STU       | RS11365 | WP          | 002949732.1 | LAIVDTMNF      | IKSDVQ           | TIVMGMAASMG                      | TTIASSGT                   | TGKGRFMLPNAEYMIHQPMGGTGGGT | TQTQTDMAIAAAEHLLKTRNN | LEQ             |           |         | 152 |     |
| NTDB id   | 298   | STER      | RS01925 | WP          | 002949732.1 | LAIVDTMNF      | IKSDVQ           | TIVMGMAASMG                      | TTIASSGT                   | TGKGRFMLPNAEYMIHQPMGGTGGGT | TQTQTDMAIAAAEHLLKTRNN | LEQ             |           |         | 152 |     |
| NTDB id   | 282   | KZH43     | RS03215 | WP          | 000613477.1 | LAIVDTMNF      | IKADVQ           | TIVMGMAASMG                      | TVIASSG                    | AKGGRFMLPNAEYMIHQPMGGTGGGT | TQTQTDMAIAAAEHLLKTRNT | LEK             |           |         | 152 |     |
| NTDB id   | 246   | SPD       | RS03495 | WP          | 000613477.1 | LAIVDTMNF      | IKADVQ           | TIVMGMAASMG                      | TVIASSG                    | AKGGRFMLPNAEYMIHQPMGGTGGGT | TQTQTDMAIAAAEHLLKTRNT | LEK             |           |         | 152 |     |
| NTDB id   | 244   | SPR       | RS03300 | WP          | 000613477.1 | LAIVDTMNF      | IKADVQ           | TIVMGMAASMG                      | TVIASSG                    | AKGGRFMLPNAEYMIHQPMGGTGGGT | TQTQTDMAIAAAEHLLKTRNT | LEK             |           |         | 152 |     |
| NTDB id   | 242   | SP        | RS03655 | WP          | 000613477.1 | LAIVDTMNF      | IKADVQ           | TIVMGMAASMG                      | TVIASSG                    | AKGGRFMLPNAEYMIHQPMGGTGGGT | TQTQTDMAIAAAEHLLKTRNT | LEK             |           |         | 152 |     |
| NTDB id   | 376   | SMU       | RS07595 | WP          | 255262720.1 | LAIVDTMNF      | IKSDVQ           | TIVMG                            | IAASMG                     | TTIASSG                    | AKGGRFMLPNAEYL        | LIHQPMGGTGGGTQS | SDMAIAAEQ | LLKTRKK | LEK | 160 |
| NTDB id   | 446   | SpyM6JRS4 | RS01695 | WP          | 002985850.1 | LAIVDTMNF      | IKADVQ           | TIVMGMAASMG                      | TVIASSG                    | TGKGRFMLPNAEYMIHQPMGGTGGGT | TQTQTDMAIAAAEHLLKTRHR | LEK             |           |         | 152 |     |
| NTDB id   | 445   | SPYM3     | RS01720 | WP          | 002985850.1 | LAIVDTMNF      | IKADVQ           | TIVMGMAASMG                      | TVIASSG                    | TGKGRFMLPNAEYMIHQPMGGTGGGT | TQTQTDMAIAAAEHLLKTRHR | LEK             |           |         | 152 |     |
| NTDB id   | 1223  | Cj0192c   | YP      | 002343650.1 | FSIYDTMNV   | IKPDVCT        | ICIGQAASMG       | AFLLSCGA                         | EKGKRFALPNSSRIMIHQPLGGARG. | . . QATDIEIQAKEILRLK       | ITILND                |                 |           |         | 151 |     |
| NTDB id   | 79536 | L6485     | RS25890 | WP          | 001049162.1 | MAIYDTMQFIKPQV | STTICIGAASMG     | AFLLAAGEKGKRYALPNSEVMIHQPLGGAQG. | . . QATEIEIAAKRIIFLR       | REKLNQ                     |                       |                 |           |         | 152 |     |
| NTDB id   | 86    | BSU       | 34540   | NP          | 391334.1    | MAIYDTMQFIKPQV | STTICIGAASMG     | AFLLAAGEKGKRYALPNSEVMIHQPLGGAQG. | . . QATEIEIAAKRIILLRD      | KLNK                       |                       |                 |           |         | 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                                      | ILADNSGQPIEKVHVDAERDNWMSAQETLEYGFIDEIMTNQLK.     | 196 |
| NTDB id   | 298   | STER      | RS01925 | WP          | 002949732.1                                      | ILADNSGQPIEKVHVDAERDNWMSAQETLEYGFIDEIMTNQLK.     | 196 |
| NTDB id   | 282   | KZH43     | RS03215 | WP          | 000613477.1                                      | ILAENSQGSMSEKVVHADAERDNWMSAQETLEYGFIDEIMANNSLN.  | 196 |
| NTDB id   | 246   | SPD       | RS03495 | WP          | 000613477.1                                      | ILAENSQGSMSEKVVHADAERDNWMSAQETLEYGFIDEIMANNSLN.  | 196 |
| NTDB id   | 244   | SPR       | RS03300 | WP          | 000613477.1                                      | ILAENSQGSMSEKVVHADAERDNWMSAQETLEYGFIDEIMANNSLN.  | 196 |
| NTDB id   | 242   | SP        | RS03655 | WP          | 000613477.1                                      | ILAENSQGSMSEKVVHADAERDNWMSAQETLEYGFIDEIMANNSLN.  | 196 |
| NTDB id   | 376   | SMU       | RS07595 | WP          | 255262720.1                                      | ILSDNSGKTIKQIHKDAERYWMDAKETLKYGFIIDEIMENNELK.    | 204 |
| NTDB id   | 446   | SpyM6JRS4 | RS01695 | WP          | 002985850.1                                      | ILAQNAGKTIKQIHKDAERYWMSAEETLAYGFIDEIMENNELK.     | 196 |
| NTDB id   | 445   | SPYM3     | RS01720 | WP          | 002985850.1                                      | ILAQNAGKTIKQIHKDAERYWMSAEETLAYGFIDEIMENNELK.     | 196 |
| NTDB id   | 1223  | Cj0192c   | YP      | 002343650.1 | ILAKNTIKKKVAKIAKDTERDFFMSAQEAKLEYGLIDKIVLEKSFK.. | 194                                              |     |
| NTDB id   | 79536 | L6485     | RS25890 | WP          | 001049162.1                                      | ILADRITGGPLEVLQRDTRDRDNFMTAEKALEYGLIDKIIFTNR.... | 193 |
| NTDB id   | 86    | BSU       | 34540   | NP          | 391334.1                                         | VLAERTGGPLEVIERDTRDRDNFKSAEAALEYGLIDKILTHTEDKK   | 197 |
| consensus |       |           |         |             |                                                  | *!***** **!*!!**!*! *****! !!!!!** * *           |     |

 non conserved  
 similar  
  $\geq 50\%$  conserved