

|               |                                  |           |                          |             |                        |                           |                    |    |
|---------------|----------------------------------|-----------|--------------------------|-------------|------------------------|---------------------------|--------------------|----|
| NTDB id 602   | KW2 RS03060 WP 011834647.1       | .....MGYL | VPTVIEQSSRGERAYDIYSRLKDR | IIMLTG      | TPVEDGMANSIIAQLFLDAQDN | TKDIYLYVNTPGGSVSAG        | 75                 |    |
| NTDB id 611   | V4T04 RS07970 WP 003129593.1     | .....MGYL | VPTVIEQSSRGERAYDIYSRLKDR | IIMLTG      | TPVEDGMANSIIAQLFLDAQDN | TKDIYLYVNTPGGSVSAG        | 75                 |    |
| NTDB id 330   | STU RS11365 WP 002949732.1       | .....     | MIPVVIEQTSRGR            | SYDIYSRLKDR | IIMLTG                 | TIEDNMANSIIAQLFLDAQDN     | TKDIYLYVNTPGGSVSAG | 72 |
| NTDB id 298   | STER RS01925 WP 002949732.1      | .....     | MIPVVIEQTSRGR            | SYDIYSRLKDR | IIMLTG                 | TIEDNMANSIIAQLFLDAQDN     | TKDIYLYVNTPGGSVSAG | 72 |
| NTDB id 282   | KZH43 RS03215 WP 000613477.1     | .....     | MIPVVIEQTSRGR            | SYDIYSRLKDR | IIMLTG                 | TPVEDNMANSIIAQLFLDAQDS    | TKDIYLYVNTPGGSVSAG | 72 |
| NTDB id 246   | SPD RS03495 WP 000613477.1       | .....     | MIPVVIEQTSRGR            | SYDIYSRLKDR | IIMLTG                 | TPVEDNMANSIIAQLFLDAQDS    | TKDIYLYVNTPGGSVSAG | 72 |
| NTDB id 244   | SPR RS03300 WP 000613477.1       | .....     | MIPVVIEQTSRGR            | SYDIYSRLKDR | IIMLTG                 | TPVEDNMANSIIAQLFLDAQDS    | TKDIYLYVNTPGGSVSAG | 72 |
| NTDB id 242   | SP RS03655 WP 000613477.1        | .....     | MIPVVIEQTSRGR            | SYDIYSRLKDR | IIMLTG                 | TPVEDNMANSIIAQLFLDAQDS    | TKDIYLYVNTPGGSVSAG | 72 |
| NTDB id 446   | SpyM6JRS4 RS01695 WP 002985850.1 | .....     | MIPVVIEQTSRGR            | SYDIYSRLKDR | IIMLTG                 | TPVEDNMANSIIAQLFLDAQDN    | TKDIYLYVNTPGGSVSAG | 72 |
| NTDB id 445   | SPYM3 RS01720 WP 002985850.1     | .....     | MIPVVIEQTSRGR            | SYDIYSRLKDR | IIMLTG                 | TPVEDNMANSIIAQLFLDAQDN    | TKDIYLYVNTPGGSVSAG | 72 |
| NTDB id 376   | SMU RS07595 WP 255262720.1       | MELKEKYS  | MIPVVIEQTSRGR            | SYDIYSRLKDR | IIMLTG                 | TPVEDNMANSIIAQLFLDAQDN    | TKDIYLYINSPGGSVSAG | 80 |
| NTDB id 36012 | A7A1 RS03450 WP 003228214.1      | .....MNL  | IPTVIEQTNRGERAYDIYSRLKDR | IIMLTG      | SAIDDNVANSI            | VSQLLFLAAEDPEKEISLYINSPGG | ITAG               | 74 |
| NTDB id 86    | BSU 34540 NP 391334.1            | .....MNL  | IPTVIEQTNRGERAYDIYSRLKDR | IIMLTG      | SAIDDNVANSI            | VSQLLFLAAEDPEKEISLYINSPGG | ITAG               | 74 |
| NTDB id 1223  | Cj0192c YP 002343650.1           | .....MF   | IPYVIEKSSRGR             | SYDIYSRLKDR | IIMLTG                 | SEIHDELAASIIAQLFLAEADP    | TKDIYLYINSPGGVITSG | 73 |
| consensus     |                                  |           | *****                    |             |                        |                           |                    |    |

[illegible]

|           |       |           |         |             |                                                  |                                                |     |
|-----------|-------|-----------|---------|-------------|--------------------------------------------------|------------------------------------------------|-----|
| 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                                      | ILADNSGQPTEKVVHDAERDNWMSAQETLEYGFIDEIMTNQLK.   | 196 |
| NTDB id   | 298   | STER      | RS01925 | WP          | 002949732.1                                      | ILADNSGQPTEKVVHDAERDNWMSAQETLEYGFIDEIMTNQLK.   | 196 |
| NTDB id   | 282   | KZH43     | RS03215 | WP          | 000613477.1                                      | ILAENSQGSMSEKVHADAEARNWMSAQETLEYGFIDEIMANNSLN. | 196 |
| NTDB id   | 246   | SPD       | RS03495 | WP          | 000613477.1                                      | ILAENSQGSMSEKVHADAEARNWMSAQETLEYGFIDEIMANNSLN. | 196 |
| NTDB id   | 244   | SPR       | RS03300 | WP          | 000613477.1                                      | ILAENSQGSMSEKVHADAEARNWMSAQETLEYGFIDEIMANNSLN. | 196 |
| NTDB id   | 242   | SP        | RS03655 | WP          | 000613477.1                                      | ILAENSQGSMSEKVHADAEARNWMSAQETLEYGFIDEIMANNSLN. | 196 |
| NTDB id   | 446   | SpyM6JRS4 | RS01695 | WP          | 002985850.1                                      | ILAAQNAGKTIKQIHKAEDRYWMSAEEETLAYGFIDEIMENNELK. | 196 |
| NTDB id   | 445   | SPYM3     | RS01720 | WP          | 002985850.1                                      | ILAAQNAGKTIKQIHKAEDRYWMSAEEETLAYGFIDEIMENNELK. | 196 |
| NTDB id   | 376   | SMU       | RS07595 | WP          | 255262720.1                                      | ILSDNSGKTIKQIHKAEDRYWMDAKETLKYGFIDEIMENNELK.   | 204 |
| NTDB id   | 36012 | A7A1      | RS03450 | WP          | 003228214.1                                      | VLAERTTGQPLEVIERDTDRDNFKSAEEALEYGLIDKILTHTEDKK | 197 |
| NTDB id   | 86    | BSU       | 34540   | NP          | 391334.1                                         | VLAERTTGQPLEVIERDTDRDNFKSAEEALEYGLIDKILTHTEDKK | 197 |
| NTDB id   | 1223  | Cj0192c   | YP      | 002343650.1 | ILAKNITIKQKVAKIAKTDTERDFFMSAQEAKKEYGLIDKVLKSFK.. | 194                                            |     |
| consensus |       |           |         |             |                                                  | *!*****!****!*!!**!!!***!!*!!!!!!*!!*!!*!!*!!* |     |

 non conserved  
 similar  
  $\geq 50\%$  conserved