

|           |        |           |         |             |             |                                                      |                                                                          |                    |     |
|-----------|--------|-----------|---------|-------------|-------------|------------------------------------------------------|--------------------------------------------------------------------------|--------------------|-----|
| NTDB id   | 602    | KW2       | RS03060 | WP          | 011834647.1 | .....MGYL                                            | VPTVIEQSSRGERAYDIYSRLKDRIIIMLTGPVEDGMANSIIAQLFLDQAQN                     | TKDIYLYVNTPGGSVSAG | 75  |
| NTDB id   | 611    | V4T04     | RS07970 | WP          | 003129593.1 | .....MGYL                                            | VPTVIEQSSRGERAYDIYSRLKDRIIIMLTGPVEDGMANSIIAQLFLDQAQN                     | TKDIYLYVNTPGGSVSAG | 75  |
| NTDB id   | 330    | STU       | RS11365 | WP          | 002949732.1 | .....MIP                                             | VVIEQTSGERSYDIYSRLKDRIIIMLTGPIEDNMANSIIAQLFLDQAQN                        | TKDIYLYVNTPGGSVSAG | 72  |
| NTDB id   | 298    | STER      | RS01925 | WP          | 002949732.1 | .....MIP                                             | VVIEQTSGERSYDIYSRLKDRIIIMLTGPIEDNMANSIIAQLFLDQAQN                        | TKDIYLYVNTPGGSVSAG | 72  |
| NTDB id   | 282    | KZH43     | RS03215 | WP          | 000613477.1 | .....MIP                                             | VVIEQTSGERSYDIYSRLKDRIIIMLTGPVEDNMANSVIAQLFLDAQDS                        | TKDIYLYVNTPGGSVSAG | 72  |
| NTDB id   | 246    | SPD       | RS03495 | WP          | 000613477.1 | .....MIP                                             | VVIEQTSGERSYDIYSRLKDRIIIMLTGPVEDNMANSVIAQLFLDAQDS                        | TKDIYLYVNTPGGSVSAG | 72  |
| NTDB id   | 244    | SPR       | RS03300 | WP          | 000613477.1 | .....MIP                                             | VVIEQTSGERSYDIYSRLKDRIIIMLTGPVEDNMANSVIAQLFLDAQDS                        | TKDIYLYVNTPGGSVSAG | 72  |
| NTDB id   | 242    | SP        | RS03655 | WP          | 000613477.1 | .....MIP                                             | VVIEQTSGERSYDIYSRLKDRIIIMLTGPVEDNMANSVIAQLFLDAQDS                        | TKDIYLYVNTPGGSVSAG | 72  |
| NTDB id   | 446    | SpyM6JRS4 | RS01695 | WP          | 002985850.1 | .....MIP                                             | VVIEQTSGERSYDIYSRLKDRIIIMLTGPVEDNMANSVIAQLFLDQAQN                        | TKDIYLYVNTPGGSVSAG | 72  |
| NTDB id   | 445    | SPYM3     | RS01720 | WP          | 002985850.1 | .....MIP                                             | VVIEQTSGERSYDIYSRLKDRIIIMLTGPVEDNMANSVIAQLFLDQAQN                        | TKDIYLYVNTPGGSVSAG | 72  |
| NTDB id   | 376    | SMU       | RS07595 | WP          | 255262720.1 | MELKEKYS                                             | MIPVVIEQTSGERSYDIYSRLKDRIIIMLTGPVEDNMANSIIAQLFLDQAQN                     | TKDIYLYINSPGGSVSAG | 80  |
| NTDB id   | 265845 | C2I05     | RS07505 | WP          | 003228214.1 | .....MNL                                             | IPTVIEQTNRGERAYDIYSRLKDRIIIMLGSAIDDNVANISVSQLLFLAAEDPEKEISLYINSPGGSTITAG | 74                 |     |
| NTDB id   | 86     | BSU       | 34540   | NP          | 391334.1    | .....MNL                                             | IPTVIEQTNRGERAYDIYSRLKDRIIIMLGSAIDDNVANISVSQLLFLAAEDPEKEISLYINSPGGSTITAG | 74                 |     |
| NTDB id   | 1223   | Cj0192c   | YP      | 002343650.1 | .....MF     | IPYVIEKSSRGRSYDIYSRLKDRIIIMLSGEIHDELAASIVAQLLFLEADPE | 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                                     | ILADNSGQPPIEKVHVDAERDNWMSAQETLEYGFIDEIMTNQLK.   | 196 |
| NTDB id   | 298    | STER      | RS01925 | WP          | 002949732.1                                     | ILADNSGGPIEKVHVDAERDNWMSAQETLEYGFIDEIMTNQLK.    | 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   | 446    | SpyM6JRS4 | RS01695 | WP          | 002985850.1                                     | ILAAQNAGKTIKQIHKDAERDYWMSAEETLAYGFIDEIMENNELK.  | 196 |
| NTDB id   | 445    | SPYM3     | RS01720 | WP          | 002985850.1                                     | ILAAQNAGKTIKQIHKDAERDYWMSAEETLAYGFIDEIMENNELK.  | 196 |
| NTDB id   | 376    | SMU       | RS07595 | WP          | 255262720.1                                     | ILSDNSGKTIKQIHKDAERDYWMDAKETLKYGFIDEIMENNELK.   | 204 |
| NTDB id   | 265845 | C2I05     | RS07505 | WP          | 003228214.1                                     | VLAERTIGQPLEVIERDTDRDNFKSAEEALEYGLIDKILTHTEDKK  | 197 |
| NTDB id   | 86     | BSU       | 34540   | NP          | 391334.1                                        | VLAERTIGQPLEVIERDTDRDNFKSAEEALEYGLIDKILTHTEDKK  | 197 |
| NTDB id   | 1223   | Cj0192c   | YP      | 002343650.1 | ILAKNTIKQKVAKIAKDTERDFFMSAQEAKKEYGLIDKVLEKSFK.. | 194                                             |     |
| consensus |        |           |         |             |                                                 | *!*****!*!!*!!!!*!!!*!!*!!*!!*!!*!!*!!*!!*      |     |

 non conserved  
 similar  
  $\geq 50\%$  conserved