

|           |        |                                  |            |                                                       |                                  |                                             |
|-----------|--------|----------------------------------|------------|-------------------------------------------------------|----------------------------------|---------------------------------------------|
| NTDB id   | 602    | KW2 RS03060 WP 011834647.1       | .....MGYL  | VPTVIEQSSRGERAYDIYSRLKDRIIMLTGPVEDGMANSIIAQLFLDQAQDN  | TCKDIYLYVNTPGGSVSAG              | 75                                          |
| NTDB id   | 611    | V4T04 RS07970 WP 003129593.1     | .....MGYL  | VPTVIEQSSRGERAYDIYSRLKDRIIMLTGPVEDGMANSIIAQLFLDQAQDN  | TCKDIYLYVNTPGGSVSAG              | 75                                          |
| NTDB id   | 330    | STU RS11365 WP 002949732.1       | .....MIPVV | IETSRGERSYDIYSRLKDRIIMLTGPIEDNMANSIIAQLFLDQAQDN       | TCKDIYLYVNTPGGSVSAG              | 72                                          |
| NTDB id   | 298    | STER RS01925 WP 002949732.1      | .....MIPVV | IETSRGERSYDIYSRLKDRIIMLTGPIEDNMANSIIAQLFLDQAQDN       | TCKDIYLYVNTPGGSVSAG              | 72                                          |
| NTDB id   | 282    | KZH43 RS03215 WP 000613477.1     | .....MIPVV | IETSRGERSYDIYSRLKDRIIMLTGPVEDNMANSIIAQLFLDQAQDS       | TCKDIYLYVNTPGGSVSAG              | 72                                          |
| NTDB id   | 246    | SPD RS03495 WP 000613477.1       | .....MIPVV | IETSRGERSYDIYSRLKDRIIMLTGPVEDNMANSIIAQLFLDQAQDS       | TCKDIYLYVNTPGGSVSAG              | 72                                          |
| NTDB id   | 244    | SPR RS03300 WP 000613477.1       | .....MIPVV | IETSRGERSYDIYSRLKDRIIMLTGPVEDNMANSIIAQLFLDQAQDS       | TCKDIYLYVNTPGGSVSAG              | 72                                          |
| NTDB id   | 242    | SP RS03655 WP 000613477.1        | .....MIPVV | IETSRGERSYDIYSRLKDRIIMLTGPVEDNMANSIIAQLFLDQAQDS       | TCKDIYLYVNTPGGSVSAG              | 72                                          |
| NTDB id   | 446    | SpyM6JRS4 RS01695 WP 002985850.1 | .....MIPVV | IETSRGERSYDIYSRLKDRIIMLTGPVEDNMANSIIAQLFLDQAQDN       | TCKDIYLYVNTPGGSVSAG              | 72                                          |
| NTDB id   | 445    | SPYM3 RS01720 WP 002985850.1     | .....MIPVV | IETSRGERSYDIYSRLKDRIIMLTGPVEDNMANSIIAQLFLDQAQDN       | TCKDIYLYVNTPGGSVSAG              | 72                                          |
| NTDB id   | 376    | SMU RS07595 WP 255262720.1       | MELKEKYS   | MIPVV IETSRGERSYDIYSRLKDRIIMLTGPVEDNMANSIIAQLFLDQAQDN | TCKDIYLYINSPGGSVSAG              | 80                                          |
| NTDB id   | 995513 | AAVB50 RS04195 WP 003228214.1    | .....MNLI  | PVTVEQTNRGERAYDIYSRLKDRIIMLGSAIDNIVANSI               | VSQLLFLAAEADPEKEISLYINSPPGGSITAG | 74                                          |
| NTDB id   | 86     | BSU 34540 NP 391334.1            | .....MNLI  | PVTVEQTNRGERAYDIYSRLKDRIIMLGSAIDNIVANSI               | VSQLLFLAAEADPEKEISLYINSPPGGSITAG | 74                                          |
| NTDB id   | 1223   | Cj0192c YP 002343650.1           | .....MFIPY | VI EKSSRGERSYDIYSRLKDRIIMLS GEIHDELAASIVAQLLFLEADDP   | TCKDIYLYINSPPGVITSG              | 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                                    | 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                                    | ILAAQNAGKTIKQIHKAERDYWMSAEETLAYGFIDEIMENNELK.   | 196 |
| NTDB id   | 445    | SPYM3     | RS01720 | WP          | 002985850.1                                    | ILAAQNAGKTIKQIHKAERDYWMSAEETLAYGFIDEIMENNELK.   | 196 |
| NTDB id   | 376    | SMU       | RS07595 | WP          | 255262720.1                                    | ILSDNSGKTIKQIHKAERDYWMDAKETLKYGFIDEIMENNELK.    | 204 |
| NTDB id   | 995513 | AAVB50    | RS04195 | WP          | 003228214.1                                    | VLAERTTGQPLEVIERDTDRDNFKSAEEALEYGLIDKILTHTEDKK  | 197 |
| NTDB id   | 86     | BSU       | 34540   | NP          | 391334.1                                       | VLAERTTGQPLEVIERDTDRDNFKSAEEALEYGLIDKILTHTEDKK  | 197 |
| NTDB id   | 1223   | Cj0192c   | YP      | 002343650.1 | ILAKNITIKQKVAKIAKTDTERDFFMSAQAKEYGLIDKVLKSFK.. | 194                                             |     |
| consensus |        |           |         |             |                                                | *!*****!!**!*!!!!!!*!!*!!*!!*!!*!!*!!*!!*       |     |

 non conserved  
 similar  
  $\geq 50\%$  conserved