

|           |        |           |         |             |             |                                                       |                                                           |                                       |                          |    |
|-----------|--------|-----------|---------|-------------|-------------|-------------------------------------------------------|-----------------------------------------------------------|---------------------------------------|--------------------------|----|
| NTDB id   | 602    | KW2       | RS03060 | WP          | 011834647.1 | .....MGYL                                             | VPTVIEQSSRGERAYDIYSRLKLDRIIMLTGVPVEDGMANSIIAQLFLDAQDN     | TKDIYLYVNTPGGSVSAG                    | 75                       |    |
| NTDB id   | 611    | V4T04     | RS07970 | WP          | 003129593.1 | .....MGYL                                             | VPTVIEQSSRGERAYDIYSRLKLDRIIMLTGVPVEDGMANSIIAQLFLDAQDN     | TKDIYLYVNTPGGSVSAG                    | 75                       |    |
| NTDB id   | 330    | STU       | RS11365 | WP          | 002949732.1 | .....                                                 | MIPVVIEQTSGERSYDIYSRLKLDRIIMLTGPTEEDNMANSIIAQLFLDAQDN     | TKDIYLYVNTPGGSVSAG                    | 72                       |    |
| NTDB id   | 298    | STER      | RS01925 | WP          | 002949732.1 | .....                                                 | MIPVVIEQTSGERSYDIYSRLKLDRIIMLTGPTEEDNMANSIIAQLFLDAQDN     | TKDIYLYVNTPGGSVSAG                    | 72                       |    |
| NTDB id   | 282    | KZH43     | RS03215 | WP          | 000613477.1 | .....                                                 | MIPVVIEQTSGERSYDIYSRLKLDRIIMLTGVPEDNMANS                  | VIAQLFLDAQDS                          | TKDIYLYVNTPGGSVSAG       | 72 |
| NTDB id   | 246    | SPD       | RS03495 | WP          | 000613477.1 | .....                                                 | MIPVVIEQTSGERSYDIYSRLKLDRIIMLTGVPEDNMANS                  | VIAQLFLDAQDS                          | TKDIYLYVNTPGGSVSAG       | 72 |
| NTDB id   | 244    | SPR       | RS03300 | WP          | 000613477.1 | .....                                                 | MIPVVIEQTSGERSYDIYSRLKLDRIIMLTGVPEDNMANS                  | VIAQLFLDAQDS                          | TKDIYLYVNTPGGSVSAG       | 72 |
| NTDB id   | 242    | SP        | RS03655 | WP          | 000613477.1 | .....                                                 | MIPVVIEQTSGERSYDIYSRLKLDRIIMLTGVPEDNMANS                  | VIAQLFLDAQDS                          | TKDIYLYVNTPGGSVSAG       | 72 |
| NTDB id   | 446    | SpyM6JRS4 | RS01695 | WP          | 002985850.1 | .....                                                 | MIPVVIEQTSGERSYDIYSRLKLDRIIMLTGVPEDNMANS                  | VIAQLFLDAQDN                          | TKDIYLYVNTPGGSVSAG       | 72 |
| NTDB id   | 445    | SPYM3     | RS01720 | WP          | 002985850.1 | .....                                                 | MIPVVIEQTSGERSYDIYSRLKLDRIIMLTGVPEDNMANS                  | VIAQLFLDAQDN                          | TKDIYLYVNTPGGSVSAG       | 72 |
| NTDB id   | 376    | SMU       | RS07595 | WP          | 255262720.1 | MELKEKYS                                              | MIPVVIEQTSGERSYDIYSRLKLDRIIMLTGVPEDNMANSIIAQLFLDAQDN      | TKDIYLYINSPPGGSVSAG                   | 80                       |    |
| NTDB id   | 985470 | MHI23     | RS15990 | WP          | 024427684.1 | .....MNL                                              | IPTVIEQTNRGERAYDIYSRLKLDRIIMLGSAIDDNVANISVSQLLFLEAEDPEKD  | ISLIYNISPGGSTITAG                     | 74                       |    |
| NTDB id   | 86     | BSU       | 34540   | NP          | 391334.1    | .....MNL                                              | IPTVIEQTNRGERAYDIYSRLKLDRIIMLGSAIDDNVANISVSQLLFLAAEADPEKE | EISLIYNISPGGSTITAG                    | 74                       |    |
| NTDB id   | 1223   | Cj0192c   | YP      | 002343650.1 | .....MF     | IPLYVIEKSSRGERSYDIYSRLKLDRIIMLSGEIHDELAASIVAQLFLAEADP | TKDIYLYINSPGGVITSG                                        | 73                                    |                          |    |
| consensus |        |           |         |             |             |                                                       | **!*!!!!!!*                                               | *!!!!!!!!!!!!!!!!!!!!!!*!*****!*****! | ****!!*!!!*!!*!!!!*!!*!! |    |

[illegible]

|           |        |           |         |             |               |                                   |                                           |     |
|-----------|--------|-----------|---------|-------------|---------------|-----------------------------------|-------------------------------------------|-----|
| NTDB id   | 602    | KW2       | RS03060 | WP          | 011834647.1   | ILADNSNRSL                        | EQIHKDAERDHWMDAKETLEYGFIDEIMENNSLK..      | 199 |
| NTDB id   | 611    | V4T04     | RS07970 | WP          | 003129593.1   | ILADNSNRSL                        | EQIHKDAERDHWMDAKETLEYGFIDEIMENNSLK..      | 199 |
| NTDB id   | 330    | STU       | RS11365 | WP          | 002949732.1   | ILADNSGQP                         | IEKVHVDAERDNWMSAQETLEYGFIDEIMTNQLK..      | 196 |
| NTDB id   | 298    | STER      | RS01925 | WP          | 002949732.1   | ILADNSGQP                         | IEKVHVDAERDNWMSAQETLEYGFIDEIMTNQLK..      | 196 |
| NTDB id   | 282    | KZH43     | RS03215 | WP          | 000613477.1   | ILAENS                            | GQSMEKVVHADAERDNWMSAQETLEYGFIDEIMANNSLN.. | 196 |
| NTDB id   | 246    | SPD       | RS03495 | WP          | 000613477.1   | ILAENS                            | GQSMEKVVHADAERDNWMSAQETLEYGFIDEIMANNSLN.. | 196 |
| NTDB id   | 244    | SPR       | RS03300 | WP          | 000613477.1   | ILAENS                            | GQSMEKVVHADAERDNWMSAQETLEYGFIDEIMANNSLN.. | 196 |
| NTDB id   | 242    | SP        | RS03655 | WP          | 000613477.1   | ILAENS                            | GQSMEKVVHADAERDNWMSAQETLEYGFIDEIMANNSLN.. | 196 |
| NTDB id   | 446    | SpyM6JRS4 | RS01695 | WP          | 002985850.1   | ILAAQNAGKT                        | IKQIHKAERDYWMSAEETLAYGFIDEIMENNELK..      | 196 |
| NTDB id   | 445    | SPYM3     | RS01720 | WP          | 002985850.1   | ILAAQNAGKT                        | IKQIHKAERDYWMSAEETLAYGFIDEIMENNELK..      | 196 |
| NTDB id   | 376    | SMU       | RS07595 | WP          | 255262720.1   | ILSDNSGKT                         | IKQIHKAERDYWMDAKETLKYGFIDEIMENNELK..      | 204 |
| NTDB id   | 985470 | MHI23     | RS15990 | WP          | 024427684.1   | VLAERTGGP                         | LEVIERDTDRDNFKTAEEALQYGLIDKVLTRNTEDQK     | 198 |
| NTDB id   | 86     | BSU       | 34540   | NP          | 391334.1      | VLAERTGGP                         | LEVIERDTDRDNFKSAEEALEYGLIDKILTHTEDKK.     | 197 |
| NTDB id   | 1223   | Cj0192c   | YP      | 002343650.1 | ILAKNITKQKVAK | IADTERDFFMSAQEAKKEYGLIDKVLKSFK... | 194                                       |     |
| consensus |        |           |         |             |               | *!*****!                          | ****!*!!**!!***!!*!***!!*!!*!*            |     |

 non conserved  
 similar  
  $\geq 50\%$  conserved