

|           |        |           |         |             |             |                                           |                                                               |                                       |                                                               |    |
|-----------|--------|-----------|---------|-------------|-------------|-------------------------------------------|---------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------|----|
| NTDB id   | 602    | KW2       | RS03060 | WP          | 011834647.1 | .....MGYL                                 | VPTVIEQSSRGERAYDIYSRLKDRIIMLTGPVEDGMANS                       | I                                     | AQLFLDQAQDNTKDIIYLVNTPGGSVSAG                                 | 75 |
| NTDB id   | 611    | V4T04     | RS07970 | WP          | 003129593.1 | .....MGYL                                 | VPTVIEQSSRGERAYDIYSRLKDRIIMLTGPVEDGMANS                       | I                                     | AQLFLDQAQDNTKDIIYLVNTPGGSVSAG                                 | 75 |
| NTDB id   | 330    | STU       | RS11365 | WP          | 002949732.1 | .....MIP                                  | VVIEQTSGERSYDIYSRLKDRIIMLTGPIEDNMANS                          | I                                     | AQLFLDQAQDNTKDIIYLVNTPGGSVSAG                                 | 72 |
| NTDB id   | 298    | STER      | RS01925 | WP          | 002949732.1 | .....MIP                                  | VVIEQTSGERSYDIYSRLKDRIIMLTGPIEDNMANS                          | I                                     | AQLFLDQAQDNTKDIIYLVNTPGGSVSAG                                 | 72 |
| NTDB id   | 282    | KZH43     | RS03215 | WP          | 000613477.1 | .....MIP                                  | VVIEQTSGERSYDIYSRLKDRIIMLTGPVEDNMANS                          | V                                     | AQLFLDAQDS TKDIIYLVNTPGGSVSAG                                 | 72 |
| NTDB id   | 246    | SPD       | RS03495 | WP          | 000613477.1 | .....MIP                                  | VVIEQTSGERSYDIYSRLKDRIIMLTGPVEDNMANS                          | V                                     | AQLFLDAQDS TKDIIYLVNTPGGSVSAG                                 | 72 |
| NTDB id   | 244    | SPR       | RS03300 | WP          | 000613477.1 | .....MIP                                  | VVIEQTSGERSYDIYSRLKDRIIMLTGPVEDNMANS                          | V                                     | AQLFLDAQDS TKDIIYLVNTPGGSVSAG                                 | 72 |
| NTDB id   | 242    | SP        | RS03655 | WP          | 000613477.1 | .....MIP                                  | VVIEQTSGERSYDIYSRLKDRIIMLTGPVEDNMANS                          | V                                     | AQLFLDAQDS TKDIIYLVNTPGGSVSAG                                 | 72 |
| NTDB id   | 308117 | DZ066     | RS08180 | WP          | 011284532.1 | .....MIP                                  | VVIEQTSGERSYDIYSRLKDRIIMLTGPVEDNMANS                          | V                                     | AQLFLDAQDNTKDIIYLVNTPGGSVSAG                                  | 72 |
| NTDB id   | 446    | SpyM6JRS4 | RS01695 | WP          | 002985850.1 | .....MIP                                  | VVIEQTSGERSYDIYSRLKDRIIMLTGPVEDNMANS                          | V                                     | AQLFLDAQDNTKDIIYLVNTPGGSVSAG                                  | 72 |
| NTDB id   | 445    | SPYM3     | RS01720 | WP          | 002985850.1 | .....MIP                                  | VVIEQTSGERSYDIYSRLKDRIIMLTGPVEDNMANS                          | V                                     | AQLFLDAQDNTKDIIYLVNTPGGSVSAG                                  | 72 |
| NTDB id   | 376    | SMU       | RS07595 | WP          | 255262720.1 | MELKEKYS                                  | MIPVVIEQTSGERSYDIYSRLKDRIIMLTGPVEDNMANS                       | I                                     | AQLFLDQAQDNTKDIIYLYINS PGGSVSAG                               | 80 |
| NTDB id   | 1223   | Cj0192c   | YP      | 002343650.1 | .....MF     | IPYVIEKSSRGERSYDIYSRLKDRIIMLS GEIHD ELAAS | I                                                             | V AQLFL EAED PTKDIIYLY INS PGGV ITS G | 73                                                            |    |
| NTDB id   | 86     | BSU       | 34540   | NP          | 391334.1    | .....MNL                                  | IPTVIEQTNRGERAYDIYSRLKDRIIMLGSA I DDNVANS                     | I                                     | VS QLL FLA AE DPE KE IS LY IN SP GG SI TAG                    | 74 |
| 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       | ILADNSGQPIEKVHVDAERDNWMSAQETLEYGFIDEIMTNNQLK.   | 196 |
| NTDB id 298 STER RS01925 WP 002949732.1      | ILADNSGQPIEKVHVDAERDNWMSAQETLEYGFIDEIMTNNQLK.   | 196 |
| NTDB id 282 KZH43 RS03215 WP 000613477.1     | ILAE NSGQSM EKVHADAERDNWMSAQETLEYGFIDEIMANNSLN. | 196 |
| NTDB id 246 SPD RS03495 WP 000613477.1       | ILAE NSGQSM EKVHADAERDNWMSAQETLEYGFIDEIMANNSLN. | 196 |
| NTDB id 244 SPR RS03300 WP 000613477.1       | ILAE NSGQSM EKVHADAERDNWMSAQETLEYGFIDEIMANNSLN. | 196 |
| NTDB id 242 SP RS03655 WP 000613477.1        | ILAE NSGQSM EKVHADAERDNWMSAQETLEYGFIDEIMANNSLN. | 196 |
| NTDB id 308117 DZ066 RS08180 WP 011284532.1  | ILAQ NAGKTIKQIHKDAERDYWMSAEETLTYGFIDEIMENNELK.  | 196 |
| NTDB id 446 SpyM6JRS4 RS01695 WP 002985850.1 | ILAQ NAGKTIKQIHKDAERDYWMSAEETLAYGFIDEIMENNELK.  | 196 |
| NTDB id 445 SPYM3 RS01720 WP 002985850.1     | ILAQ NAGKTIKQIHKDAERDYWMSAEETLAYGFIDEIMENNELK.  | 196 |
| NTDB id 376 SMU RS07595 WP 255262720.1       | ILSDNSGKTIKQIHKDAERDYWMDAKETLKYGFIDEIMENNELK.   | 204 |
| NTDB id 1223 Cj0192c YP 002343650.1          | ILAKNTKQKVAKIAKDTTERDFFMSAQEAK EYGLIDKVL EKSFK. | 194 |
| NTDB id 86 BSU 34540 NP 391334.1             | VLAERTGQPLEVIERDTRDNFKSAEEALEYGLIDKILTHTEDKK    | 197 |
| consensus                                    | *!***** ** *!*****! ****! !*****! !*!***** ** * |     |

 non conserved  
 similar  
  $\geq 50\%$  conserved