

|           |       |           |         |             |             |                                      |                                                        |                                  |    |
|-----------|-------|-----------|---------|-------------|-------------|--------------------------------------|--------------------------------------------------------|----------------------------------|----|
| NTDB id   | 602   | KW2       | RS03060 | WP          | 011834647.1 | .....MGYL                            | VPTVIEQSSRGERAYDIYSRLKDRIIMLTGPVEDGMANS                | IAQLFLDQAQDNTKDIIYLYVNTPGGSVSAG  | 75 |
| NTDB id   | 611   | V4T04     | RS07970 | WP          | 003129593.1 | .....MGYL                            | VPTVIEQSSRGERAYDIYSRLKDRIIMLTGPVEDGMANS                | IAQLFLDQAQDNTKDIIYLYVNTPGGSVSAG  | 75 |
| NTDB id   | 330   | STU       | RS11365 | WP          | 002949732.1 | .....MIPV                            | VIEQTSGERSYDIYSRLKDRIIMLTGPTEEDNMANS                   | IAQLFLDQAQDNTKDIIYLYVNTPGGSVSAG  | 72 |
| NTDB id   | 298   | STER      | RS01925 | WP          | 002949732.1 | .....MIPV                            | VIEQTSGERSYDIYSRLKDRIIMLTGPIEDNMANS                    | IAQLFLDQAQDNTKDIIYLYVNTPGGSVSAG  | 72 |
| NTDB id   | 282   | KZH43     | RS03215 | WP          | 000613477.1 | .....MIPV                            | VIEQTSGERSYDIYSRLKDRIIMLTGPVEDNMANS                    | IAQLFLDQAQDSTKDIIYLYVNTPGGSVSAG  | 72 |
| NTDB id   | 246   | SPD       | RS03495 | WP          | 000613477.1 | .....MIPV                            | VIEQTSGERSYDIYSRLKDRIIMLTGPVEDNMANS                    | IAQLFLDQAQDSTKDIIYLYVNTPGGSVSAG  | 72 |
| NTDB id   | 244   | SPR       | RS03300 | WP          | 000613477.1 | .....MIPV                            | VIEQTSGERSYDIYSRLKDRIIMLTGPVEDNMANS                    | IAQLFLDQAQDSTKDIIYLYVNTPGGSVSAG  | 72 |
| NTDB id   | 242   | SP        | RS03655 | WP          | 000613477.1 | .....MIPV                            | VIEQTSGERSYDIYSRLKDRIIMLTGPVEDNMANS                    | IAQLFLDQAQDSTKDIIYLYVNTPGGSVSAG  | 72 |
| NTDB id   | 24533 | M5005     | RS01810 | WP          | 002985850.1 | .....MIPV                            | VIEQTSGERSYDIYSRLKDRIIMLTGPVEDNMANS                    | IAQLFLDQAQDNTKDIIYLYVNTPGGSVSAG  | 72 |
| NTDB id   | 446   | SpyM6JRS4 | RS01695 | WP          | 002985850.1 | .....MIPV                            | VIEQTSGERSYDIYSRLKDRIIMLTGPVEDNMANS                    | IAQLFLDQAQDNTKDIIYLYVNTPGGSVSAG  | 72 |
| NTDB id   | 445   | SPYM3     | RS01720 | WP          | 002985850.1 | .....MIPV                            | VIEQTSGERSYDIYSRLKDRIIMLTGPVEDNMANS                    | IAQLFLDQAQDNTKDIIYLYVNTPGGSVSAG  | 72 |
| NTDB id   | 376   | SMU       | RS07595 | WP          | 255262720.1 | MELKEKYS                             | MIPVVIEQTSGERSYDIYSRLKDRIIMLTGPVEDNMANS                | IAQLFLDQAQDNTKDIIYLYINSPPGGSVSAG | 80 |
| NTDB id   | 1223  | Cj0192c   | YP      | 002343650.1 | .....MFIPY  | VIEKSSRGRSYDIYSRLKDRIIMLSGEIHDELAAAS | IVAQLLFLEAEDPTKDIIYLYINSPPGVITSG                       | 73                               |    |
| NTDB id   | 86    | BSU       | 34540   | NP          | 391334.1    | .....MNL                             | IPTVIEQTNRGERAYDIYSRLKDRIIMLGSAIDDNVANS                | IVSQLLFLAAEDPEKEISLYINSPPGSITAG  | 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 NSGQSMEKVVHADAERDNWMSAQETLEYGFIDEIMANNSLN.       | 196 |
| NTDB id 246 SPD RS03495 WP 000613477.1       | ILAE NSGQSMEKVVHADAERDNWMSAQETLEYGFIDEIMANNSLN.       | 196 |
| NTDB id 244 SPR RS03300 WP 000613477.1       | ILAE NSGQSMEKVVHADAERDNWMSAQETLEYGFIDEIMANNSLN.       | 196 |
| NTDB id 242 SP RS03655 WP 000613477.1        | ILAE NSGQSMEKVVHADAERDNWMSAQETLEYGFIDEIMANNSLN.       | 196 |
| NTDB id 24533 M5005 RS01810 WP 002985850.1   | ILAQ NAGKTIKQIHKDAERDYWMSAEETLAYGFIDEIMENNELK.        | 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       | ILSDNSGKTIKQIHKDAERDYWMDAKETLK YGFIDEIMENNELK.        | 204 |
| NTDB id 1223 Cj0192c YP 002343650.1          | ILAKNTKQKVAKIAKDTERDFFMSAQEAK EYGLIDKVLKSFK.          | 194 |
| NTDB id 86 BSU 34540 NP 391334.1             | VLAERTGQPLEVIERDTRD NFKSAEEALEYGLIDKILTHTEDKK         | 197 |
| consensus                                    | *!***** * * * ! * * * ! * * * ! * * * ! * * * ! * * * |     |

 non conserved  
 similar  
  $\geq 50\%$  conserved