

|                                              |           |                                          |               |             |                 |    |
|----------------------------------------------|-----------|------------------------------------------|---------------|-------------|-----------------|----|
| NTDB id 602 KW2 RS03060 WP 011834647.1       | .....MGYL | VPTVIEQSSRGERAYDIYSRLKDRIMLTGPVEDGMANS   | IIAQLFLDAQDN  | TKDIIYLYVNT | PGGSVSAG        | 75 |
| NTDB id 611 V4T04 RS07970 WP 003129593.1     | .....MGYL | VPTVIEQSSRGERAYDIYSRLKDRIMLTGPVEDGMANS   | IIAQLFLDAQDN  | TKDIIYLYVNT | PGGSVSAG        | 75 |
| NTDB id 330 STU RS11365 WP 002949732.1       | .....     | MIPVVIEQTSRGRERSYDIYSRLKDRIMLTGPTEDNMANS | IIAQLFLDAQDN  | TKDIIYLYVNT | PGGSVSAG        | 72 |
| NTDB id 298 STER RS01925 WP 002949732.1      | .....     | MIPVVIEQTSRGRERSYDIYSRLKDRIMLTGPTEDNMANS | IIAQLFLDAQDN  | TKDIIYLYVNT | PGGSVSAG        | 72 |
| NTDB id 282 KZH43 RS03215 WP 000613477.1     | .....     | MIPVVIEQTSRGRERSYDIYSRLKDRIMLTGPVEDNMANS | VIAQLFLDAQDS  | TKDIIYLYVNT | PGGSVSAG        | 72 |
| NTDB id 246 SPD RS03495 WP 000613477.1       | .....     | MIPVVIEQTSRGRERSYDIYSRLKDRIMLTGPVEDNMANS | VIAQLFLDAQDS  | TKDIIYLYVNT | PGGSVSAG        | 72 |
| NTDB id 244 SPR RS03300 WP 000613477.1       | .....     | MIPVVIEQTSRGRERSYDIYSRLKDRIMLTGPVEDNMANS | VIAQLFLDAQDS  | TKDIIYLYVNT | PGGSVSAG        | 72 |
| NTDB id 242 SP RS03655 WP 000613477.1        | .....     | MIPVVIEQTSRGRERSYDIYSRLKDRIMLTGPVEDNMANS | VIAQLFLDAQDS  | TKDIIYLYVNT | PGGSVSAG        | 72 |
| NTDB id 446 SpyM6JRS4 RS01695 WP 002985850.1 | .....     | MIPVVIEQTSRGRERSYDIYSRLKDRIMLTGPVEDNMANS | VIAQLFLDAQDN  | TKDIIYLYVNT | PGGSVSAG        | 72 |
| NTDB id 445 SPYM3 RS01720 WP 002985850.1     | .....     | MIPVVIEQTSRGRERSYDIYSRLKDRIMLTGPVEDNMANS | VIAQLFLDAQDN  | TKDIIYLYVNT | PGGSVSAG        | 72 |
| NTDB id 376 SMU RS07595 WP 255262720.1       | MELKEKYS  | MIPVVIEQTSRGRERSYDIYSRLKDRIMLTGPVEDNMANS | IIAQLFLDAQDN  | TKDIIYLY    | INSPGGSVSAG     | 80 |
| NTDB id 1223 Cj0192c YP 002343650.1          | .....MFIP | YVIEKSSRGRERSYDIYSRLKDRIMLTGSETHDELAAS   | IVAQLFLFEAEDP | TKDIIYLY    | INSPGGVITSG     | 73 |
| NTDB id 55944 HD73 RS16050 WP 000991610.1    | .....MNA  | IPYVVEQTKLGRERSYDIYSRLKDRIMLTGSEINDQVASS | VVAQLFLFEAEDA | EKDI        | FLYINSPGGSTITAG | 74 |
| NTDB id 86 BSU 34540 NP 391334.1             | .....MNL  | IPTVIEQTNRGERAYDIYSRLKDRIMLTGSAIDDNVANS  | IVSQQLLFLAAED | PEKEISLY    | INSPGGSTITAG    | 74 |
| consensus                                    |           | *****                                    |               |             |                 |    |

[illegible]

|                                              |            |                 |                              |     |
|----------------------------------------------|------------|-----------------|------------------------------|-----|
| NTDB id 602 KW2 RS03060 WP 011834647.1       | ILADNSNRSL | EQTHKDAERD      | HWMDAKETLEYGFIDEIMENNSL      | 199 |
| NTDB id 611 V4T04 RS07970 WP 003129593.1     | ILADNSNRSL | EQTHKDAERD      | HWMDAKETLEYGFIDEIMENNSL      | 199 |
| NTDB id 330 STU RS11365 WP 002949732.1       | ILADNSGQP  | IEKVHVD         | DAERDNWMSAQETLEYGFIDEIMTNNQL | 196 |
| NTDB id 298 STER RS01925 WP 002949732.1      | ILADNSGQP  | IEKVHVD         | DAERDNWMSAQETLEYGFIDEIMTNNQL | 196 |
| NTDB id 282 KZH43 RS03215 WP 000613477.1     | ILAE NSGQ  | SMEKVHAD        | DAERDNWMSAQETLEYGFIDEIMANNSL | 196 |
| NTDB id 246 SPD RS03495 WP 000613477.1       | ILAE NSGQ  | SMEKVHAD        | DAERDNWMSAQETLEYGFIDEIMANNSL | 196 |
| NTDB id 244 SPR RS03300 WP 000613477.1       | ILAE NSGQ  | SMEKVHAD        | DAERDNWMSAQETLEYGFIDEIMANNSL | 196 |
| NTDB id 242 SP RS03655 WP 000613477.1        | ILAE NSGQ  | SMEKVHAD        | DAERDNWMSAQETLEYGFIDEIMANNSL | 196 |
| NTDB id 446 SpyM6JRS4 RS01695 WP 002985850.1 | ILAQNA     | GKTIKQTHKDAERDY | WMSAEETLAYGFIDEIMENNEL       | 196 |
| NTDB id 445 SPYM3 RS01720 WP 002985850.1     | ILAQNA     | GKTIKQTHKDAERDY | WMSAEETLAYGFIDEIMENNEL       | 196 |
| NTDB id 376 SMU RS07595 WP 255262720.1       | ILSDNS     | GKTIKQTHKDAERDY | WMDAKETLKYGFIDEIMENNEL       | 204 |
| NTDB id 1223 Cj0192c YP 002343650.1          | ILAKNT     | KQKVAKIAKD      | TERDFEMSQAQEAKEYGLIDKVL      | 194 |
| NTDB id 55944 HD73 RS16050 WP 000991610.1    | MTAEK      | TGQPIERV        | AHDTERDYFMTAEAAKAYGI         | 193 |
| NTDB id 86 BSU 34540 NP 391334.1             | VLAERT     | GQPLEVIERD      | TDNRNFKSAEEALEYGLIDKIL       | 197 |
| consensus                                    | *****      | *****           | *****                        |     |

 non conserved  
 similar  
  $\geq 50\%$  conserved