

[illegible]

|           |    |        |           |         |             |              |                       |                      |                |                    |                        |                        |                         |            |      |
|-----------|----|--------|-----------|---------|-------------|--------------|-----------------------|----------------------|----------------|--------------------|------------------------|------------------------|-------------------------|------------|------|
| NTDB      | id | 602    | KW2       | RS03060 | WP          | 011834647.1  | LAIVDTMNFIKS          | DVQTI VMGMAASMGTTI   | IASSGT         | TGKGRFMLPNAEYL     | L                      | IHQPMGGAG              | QGTQQTDMAIVAEQLL        | KTRKRLEQ   | 155  |
| NTDB      | id | 611    | V4T04     | RS07970 | WP          | 003129593.1  | LAIVDTMNFIKS          | DVQTI VMGMAASMGTTI   | IASSGT         | TGKGRFMLPNAEYL     | L                      | IHQPMGGTG              | QGTQQTDMAIVAEQLL        | KTRKRLEQ   | 155  |
| NTDB      | id | 330    | STU       | RS11365 | WP          | 002949732.1  | LAIVDTMNFIKS          | DVQTI VMGMAASMGTTI   | IASSGT         | TGKGRFMLPNAEYMIHQP | MGGTGGGTQQTDMAIAAAEHLL | KTRNNLEQ               | 152                     |            |      |
| NTDB      | id | 298    | STER      | RS01925 | WP          | 002949732.1  | LAIVDTMNFIKS          | DVQTI VMGMAASMGTTI   | IASSGT         | TGKGRFMLPNAEYMIHQP | MGGTGGGTQQTDMAIAAAEHLL | KTRNNLEQ               | 152                     |            |      |
| NTDB      | id | 282    | KZH43     | RS03215 | WP          | 000613477.1  | LAIVDTMNFIKA          | DVQTI VMGMAASMGTVI   | IASSG          | A                  | KGGRFMLPNAEYMIHQP      | MGGTGGGTQQTDMAIAAAEHLL | KTRNTLEK                | 152        |      |
| NTDB      | id | 246    | SPD       | RS03495 | WP          | 000613477.1  | LAIVDTMNFIKA          | DVQTI VMGMAASMGTVI   | IASSG          | A                  | KGGRFMLPNAEYMIHQP      | MGGTGGGTQQTDMAIAAAEHLL | KTRNTLEK                | 152        |      |
| NTDB      | id | 244    | SPR       | RS03300 | WP          | 000613477.1  | LAIVDTMNFIKA          | DVQTI VMGMAASMGTVI   | IASSG          | A                  | KGGRFMLPNAEYMIHQP      | MGGTGGGTQQTDMAIAAAEHLL | KTRNTLEK                | 152        |      |
| NTDB      | id | 242    | SP        | RS03655 | WP          | 000613477.1  | LAIVDTMNFIKA          | DVQTI VMGMAASMGTVI   | IASSG          | A                  | KGGRFMLPNAEYMIHQP      | MGGTGGGTQQTDMAIAAAEHLL | KTRNTLEK                | 152        |      |
| NTDB      | id | 446    | SpyM6JRS4 | RS01695 | WP          | 002985850.1  | LAIVDTMNFIKA          | DVQTI VMGMAASMGTVI   | IASSG          | T                  | GKGRFMLPNAEYMIHQP      | MGGTGGGTQQTDMAIAAAEHLL | KTRHRLEK                | 152        |      |
| NTDB      | id | 445    | SPYM3     | RS01720 | WP          | 002985850.1  | LAIVDTMNFIKA          | DVQTI VMGMAASMGTVI   | IASSG          | T                  | GKGRFMLPNAEYMIHQP      | MGGTGGGTQQTDMAIAAAEHLL | KTRHRLEK                | 152        |      |
| NTDB      | id | 376    | SMU       | RS07595 | WP          | 255262720.1  | LAIVDTMNFIKS          | DVQTI VMGTAASMGTTI   | IASSG          | A                  | KGGRFMLPNAEYL          | L                      | IHQPMGGTGGGTQQSDMAIAAEQ | LLKTRKKLEK | 160  |
| NTDB      | id | 964261 | NST88     | RS17940 | WP          | 003228214.1  | MAIYDTMQFIKP          | KPVSTICI             | GMAASMGAFLLAAG | EKGKRYALPNSEV      | MIHQPLGGAQG..          | QATEIEIAAKRI           | LLLLRDKLNK              | 152        |      |
| NTDB      | id | 86     | BSU       | 34540   | NP          | 391334.1     | MAIYDTMQFIKP          | KPVSTICI             | GMAASMGAFLLAAG | EKGKRYALPNSEV      | MIHQPLGGAQG..          | QATEIEIAAKRI           | LLLLRDKLNK              | 152        |      |
| NTDB      | id | 1223   | Cj0192c   | YP      | 002343650.1 | FSIYDTMNYIKP | DVCTICIGQAASMGAFLLSCG | AECKRFALPNSRIMIHQPLG | GARG.          | .                  | QATDIEIQAKEILLRL       | KTILND                 | 151                     |            |      |
| consensus |    |        |           |         |             |              | **!*!!**!             | *!***!!*             | *****          | *!!!!!!*           | *****                  | ****                   | *****                   | *****      | **** |

|           |        |           |         |             |                                                  |                                                  |     |
|-----------|--------|-----------|---------|-------------|--------------------------------------------------|--------------------------------------------------|-----|
| 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                                      | ILAENSQGSMSEKVHADAEARNWMSAQETLEYGFIDEIMANNSLN.   | 196 |
| NTDB id   | 246    | SPD       | RS03495 | WP          | 000613477.1                                      | ILAENSQGSMSEKVHADAEARNWMSAQETLEYGFIDEIMANNSLN.   | 196 |
| NTDB id   | 244    | SPR       | RS03300 | WP          | 000613477.1                                      | ILAENSQGSMSEKVHADAEARNWMSAQETLEYGFIDEIMANNSLN.   | 196 |
| NTDB id   | 242    | SP        | RS03655 | WP          | 000613477.1                                      | ILAENSQGSMSEKVHADAEARNWMSAQETLEYGFIDEIMANNSLN.   | 196 |
| NTDB id   | 446    | SpyM6JRS4 | RS01695 | WP          | 002985850.1                                      | ILAAQNAGKTIKQIHKAEDRYWMSAEEETLAYGFIDEIMENNELK.   | 196 |
| NTDB id   | 445    | SPYM3     | RS01720 | WP          | 002985850.1                                      | ILAAQNAGKTIKQIHKAEDRYWMSAEEETLAYGFIDEIMENNELK.   | 196 |
| NTDB id   | 376    | SMU       | RS07595 | WP          | 255262720.1                                      | ILSDNSGKTIKQIHKAEDRYWMDAKETLKYGFIDEIMENNELK.     | 204 |
| NTDB id   | 964261 | NST88     | RS17940 | WP          | 003228214.1                                      | VLAERTTGQPLEVIERDTDRDNFKSAEEALEYGLIDKILTHTEDKK   | 197 |
| NTDB id   | 86     | BSU       | 34540   | NP          | 391334.1                                         | VLAERTTGQPLEVIERDTDRDNFKSAEEALEYGLIDKILTHTEDKK   | 197 |
| NTDB id   | 1223   | Cj0192c   | YP      | 002343650.1 | ILAKNITIKQKVAKIAKTDTERDFFMSAQEAKKEYGLIDKVLKSFK.. | 194                                              |     |
| consensus |        |           |         |             |                                                  | *!*****!****!*!!**!!!*!!!!!!*!!!!!!*!!*!!*!!*!!* |     |

 non conserved  
 similar  
  $\geq 50\%$  conserved