

|                |                                |        |   |   |   |   |    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |   |   |   |   |    |   |    |   |     |    |   |   |    |
|----------------|--------------------------------|--------|---|---|---|---|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|---|---|---|----|---|----|---|-----|----|---|---|----|
| NTDB id 619    | LCA RS06470 WP 011374999.1     | .....M | K | K | R | K | A  | F | T | L | E | M | V | V | L | A | I | T | A | L | L | L | V | A | P | N | L | G | A | Q | K | R | A | E | K | T | D | Q | A | L | V | T | T | L | Q | T | Q | V | E | L | A | S | D | E | I | G | H | Q | I | 65 |   |   |   |   |    |   |    |   |     |    |   |   |    |
| NTDB id 32     | MW RS07995 WP 000472256.1      | .....M | F | K | F | L | .. | K | K | T | Q | A | F | T | L | E | M | L | V | L | L | I | I | S | L | L | L | L | I | L | I | P | N | I | A | K | Q | T | A | H | I | Q | S | T | G | C | N | A | Q | V | K | M | V | N | S | Q | I | E | A | L  | K | H | N | R | N  | P | 68 |   |     |    |   |   |    |
| NTDB id 16     | SA RS07765 WP 000472256.1      | .....M | F | K | F | L | .. | K | K | T | Q | A | F | T | L | E | M | L | V | L | L | I | I | S | L | L | L | L | I | L | I | P | N | I | A | K | Q | T | A | H | I | Q | S | T | G | C | N | A | Q | V | K | M | V | N | S | Q | I | E | A | L  | K | H | N | R | N  | P | 68 |   |     |    |   |   |    |
| NTDB id 588    | KW2 RS10845 WP 051303741.1     | MSK    | A | L | S | L | V  | K | I | H | R | K | L | C | Q | K | Q | K | A | F | T | L | E | M | L | V | L | A | I | I | S | L | L | L | L | F | V | P | N | L | I | K | E | K | A | Q | V | Q | K | T | G | E | A | A | V | V | K | V | V | E  | S | Q | A | L | Y  | E | L  | D | H   | N  | D | K | 80 |
| NTDB id 460    | GPW51 RS00790 WP 011921720.1   | .....M | K | K | L | V | E  | M | V | K | G | F | T | L | V | E | M | L | V | V | L | G | I | S | L | L | L | L | F | V | P | N | L | S | Q | Q | K | D | A | I | Q | K | G | D | A | A | V | V | K | V | V | E | S | Q | M | E | L | Y | E | L  | H | D | E | E | 68 |   |    |   |     |    |   |   |    |
| NTDB id 502    | SM12261 RS00955 WP 000738641.1 | .....M | K | K | M | T | F  | L | K | K | A | K | V | K | A | F | T | L | V | E | M | L | V | L | L | I | I | S | V | L | L | L | F | V | P | N | L | T | K | Q | K | E | A | V | N | D | K | G | K | A | A | V | V | K | V | V | E | S | Q | A  | E | L | Y | S | L  | D | K  | N | .ED | 72 |   |   |    |
| NTDB id 106313 | AABA14 RS10130 WP 000738638.1  | .....M | K | K | M | T | F  | L | K | K | A | K | V | K | A | F | T | L | V | E | M | L | V | L | L | I | I | S | V | L | F | L | F | V | P | N | L | T | K | Q | K | E | A | V | N | D | K | G | K | A | A | V | V | K | V | V | E | S | Q | A  | E | L | Y | S | L  | E | K  | N | .ED | 72 |   |   |    |
| NTDB id 272    | KZH43 RS09255 WP 000738626.1   | .....M | K | K | M | T | F  | L | K | K | A | K | V | K | A | F | T | L | V | E | M | L | V | L | L | I | I | S | V | L | F | L | F | V | P | N | L | T | K | Q | K | E | A | V | N | D | K | G | K | A | A | V | V | K | V | V | E | S | Q | A  | E | L | Y | S | L  | E | K  | N | .ED | 72 |   |   |    |
| NTDB id 231    | SPD RS09885 WP 000738626.1     | .....M | K | K | M | T | F  | L | K | K | A | K | V | K | A | F | T | L | V | E | M | L | V | L | L | I | I | S | V | L | F | L | F | V | P | N | L | T | K | Q | K | E | A | V | N | D | K | G | K | A | A | V | V | K | V | V | E | S | Q | A  | E | L | Y | S | L  |   |    |   |     |    |   |   |    |

|           |    |        |         |         |    |             |                                       |     |
|-----------|----|--------|---------|---------|----|-------------|---------------------------------------|-----|
| NTDB      | id | 619    | LCA     | RS06470 | WP | 011374999.1 | KSLDEL.LTDKYTSKDQLKHAKLKGITIEGGTVKQK. | 99  |
| NTDB      | id | 32     | MW      | RS07995 | WP | 000472256.1 | SSIEDLIADGFIKEAQKTCCKSGETITIS.NGEAVAN | 103 |
| NTDB      | id | 16     | SA      | RS07765 | WP | 000472256.1 | SSIEDLIADGFIKEAQKTCCKSGETITIS.NGEAVAN | 103 |
| NTDB      | id | 588    | KW2     | RS10845 | WP | 051303741.1 | PNLSELLSAGMITKQKVTAVDYDQNKNEQRNFDD    | 116 |
| NTDB      | id | 460    | GPW51   | RS00790 | WP | 011921720.1 | ATVADLQAKGYITEKQAKQYATAKK.....        | 93  |
| NTDB      | id | 502    | SM12261 | RS00955 | WP | 000738641.1 | ASLSKLQADGRITEEQAKAYKEYHAKQNTSQTVD.   | 107 |
| NTDB      | id | 106313 | AABA14  | RS10130 | WP | 000738638.1 | ASLSKLQADGRITEEQAKAYKEYHDKNGVANRKVND  | 108 |
| NTDB      | id | 272    | KZH43   | RS09255 | WP | 000738626.1 | ASLRKLQADGRITEEQAKAYKEYHDKNGGANRKVND  | 108 |
| NTDB      | id | 231    | SPD     | RS09885 | WP | 000738626.1 | ASLRKLQADGRITEEQAKAYKEYHDKNGGANRKVND  | 108 |
| NTDB      | id | 197    | SPR     | RS09420 | WP | 000738626.1 | ASLRKLQADGRITEEQAKAYKEYHDKNGGANRKVND  | 108 |
| NTDB      | id | 162    | SP      | RS10370 | WP | 000738627.1 | ASLRKLQADGRITEEQAKAYKEYNDKNGGANRKVND  | 108 |
| NTDB      | id | 530    | SMSK321 | RS09230 | WP | 000738643.1 | ASLSKLQADGRITEEQAKAYNEYAKNGGANRKVND   | 108 |
| NTDB      | id | 431    | SGO     | RS09410 | WP | 012130940.1 | ATLSKLVAAGNISQKQADSYPKAYYGKUNSETQAVAN | 105 |
| NTDB      | id | 396    | FSA28   | RS09395 | WP | 002263437.1 | ATLSKLVASGDITQEQANSYKDYAKHPSKTRHVN    | 104 |
| NTDB      | id | 387    | SMU     | RS09025 | WP | 002263437.1 | ATLSKLVASGDITQEQANSYKDYAKHPSKTRHVN    | 104 |
| consensus |    |        |         |         |    |             | *** * ! ** * ! ** * ! ** * ** * * *   |     |

- X non conserved
- X similar
- X  $\geq 50\%$  conserved