

|           |    |       |         |         |    |             |                                                                                          |    |
|-----------|----|-------|---------|---------|----|-------------|------------------------------------------------------------------------------------------|----|
| NTDB      | id | 617   | LCA     | RS06480 | WP | 011375001.1 | .MSTEEKLTTLLKHCAKQRVQDLYFTPTIGGWRLTERRQSDLVTNQELDKPTGTRYLNRLKYMAGMDISERRAQTGRSELQLAD     | 84 |
| NTDB      | id | 586   | KW2     | RS10855 | WP | 011836048.1 | ..MVQKKKAQELIQKAIEMEAASDIYLIASGNLYKIYIRQQLGRTLTIEEVNQEIGLALLTHFKFLAGMNTGERRRVQLGACWVELEG | 83 |
| NTDB      | id | 429   | SGO     | RS09420 | WP | 012130942.1 | ..MVQKKAQAIVRKAKEECAQDIYFVPKDDCYELYMRIGDERRFICTYDFDQLAAVISHFKFLAGMNVGEKRRSQLGSCDYRYDD    | 83 |
| NTDB      | id | 500   | SM12261 | RS00945 | WP | 000249545.1 | ..MVQEIAQEIIIRSARKKGAQDIYFVPKLDAYELHMRVGDERCCKIGSYDFEKFAAVISHFKFVAGMNVGEKRRSQLGSCDYRYDQ  | 83 |
| NTDB      | id | 270   | KZH43   | RS09265 | WP | 000249564.1 | ..MVQEIAQEIIIRSARKKGTQDIYFVPKLDAYELHMRVGDERCCKIGSYDFEKFAAVISHFKFVAGMNVGEKRRSQLGSCDYAYDH  | 83 |
| NTDB      | id | 229   | SPD     | RS09895 | WP | 000249564.1 | ..MVQEIAQEIIIRSARKKGTQDIYFVPKLDAYELHMRVGDERCCKIGSYDFEKFAAVISHFKFVAGMNVGEKRRSQLGSCDYAYDH  | 83 |
| NTDB      | id | 195   | SPR     | RS09430 | WP | 000249564.1 | ..MVQEIAQEIIIRSARKKGTQDIYFVPKLDAYELHMRVGDERCCKIGSYDFEKFAAVISHFKFVAGMNVGEKRRSQLGSCDYAYDH  | 83 |
| NTDB      | id | 160   | SP      | RS10380 | WP | 000249564.1 | ..MVQEIAQEIIIRSARKKGTQDIYFVPKLDAYELHMRVGDERCCKIGSYDFEKFAAVISHFKFVAGMNVGEKRRSQLGSCDYAYDH  | 83 |
| NTDB      | id | 584   | DLJ51   | RS00890 | WP | 019777327.1 | MVEVQELGKELIRQAVEEQAQDIYLLPKPAVYKIYLRFFGCKRHLIQTCPPEKQAAGLISHFKFLAGMNVGEKRRSQLGSCDYAFAD  | 85 |
| NTDB      | id | 41048 | SGPB    | RS00605 | WP | 003062917.1 | ..MTQEEAKQLIKDAVEVNAQDIYILPREDCYEVYQVRVGDQRRFVDYFEIEQMTSLISHFKFVAGMNVGEKRRSQLGSCDYQFAD   | 83 |
| NTDB      | id | 385   | SMU     | RS09035 | WP | 002263435.1 | ..MVQKLGKRKIIEAEAVQNKAQDIYIIPKKESYELYMRIIGNERRFIDVYDHHFMANLISHFKFVAGMNVGEKRRSQLGSCDYSYDE | 83 |
| NTDB      | id | 394   | FSA28   | RS09405 | WP | 002291652.1 | ..MVQKLGKRKIIEAEAVQNKAQDIYIIPKKESYELYMRIIGNERRFIDVYDHHFMANLISHFKFVAGMNVGEKRRSQLGSCDYSYDE | 83 |
| consensus |    |       |         |         |    |             | *****                                                                                    | 83 |

|      |    |       |         |         |    |             |                                       |         |      |      |        |       |       |       |      |       |      |     |      |       |   |    |   |   |   |   |   |     |   |   |   |   |     |   |   |   |   |    |    |   |    |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |     |     |   |     |
|------|----|-------|---------|---------|----|-------------|---------------------------------------|---------|------|------|--------|-------|-------|-------|------|-------|------|-----|------|-------|---|----|---|---|---|---|---|-----|---|---|---|---|-----|---|---|---|---|----|----|---|----|---|---|---|---|---|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|-----|-----|---|-----|
| NTDB | id | 617   | LCA     | RS06480 | WP | 011375001.1 | .QTIYLRRLATVGDFLNRESLVIRFIYPIGAIYHCDQ | QILAQ   | L    | TQMS | R      | QSGLI | L     | FAGPT | T    | SGKTT | S    | LYH | LA   | QSSMS | A | KM | V | A | T | E | D | 168 |   |   |   |   |     |   |   |   |   |    |    |   |    |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |     |     |   |     |
| NTDB | id | 586   | KW2     | RS10855 | WP | 011836048.1 | SSAKRLRLSTVGDFEGNESLVIRLLHDKQ         | LELFWFD | .DK. | L    | QDFRCK | R     | GLYLF | F     | AGPV | G     | SGKT | S   | LMFD | L     | A | R  | H | F | S | N | A | Q   | V | I | T | E | 165 |   |   |   |   |    |    |   |    |   |   |   |   |   |   |     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |     |     |   |     |
| NTDB | id | 429   | SGO     | RS09420 | WP | 012130942.1 | .KETSI                                | R       | L    | S    | T      | V     | G     | D     | Y    | R     | G    | Y   | E    | S     | L | V  | I | R | L | L | H | D   | E | E | T | L | K   | F | W | F | T | .H | F  | P | E  | L | R | E | K | F | K | D   | R | G | L | Y | L | F | S | G | P | V | G | S | G | K | T | T | L | M | H | Q | L | A | Q | L | F | K | Q | Q | V | M | S | I | E | D | 166 |     |     |   |     |
| NTDB | id | 500   | SM12261 | RS00945 | WP | 000249545.1 | .KMASL                                | R       | L    | S    | T      | V     | G     | D     | Y    | R     | G    | H   | E    | S     | L | V  | I | R | L | L | H | D   | E | E | Q | D | L   | H | F | W | F | Q  | .D | I | E  | E | L | G | K | Q | Y | R   | Q | R | G | L | Y | L | F | A | G | P | V | G | S | G | K | T | T | L | M | H | E | L | A | S | L | F | K | Q | Q | V | M | S | I | E | D   | 166 |     |   |     |
| NTDB | id | 270   | KZH43   | RS09265 | WP | 000249564.1 | .KIASL                                | R       | L    | S    | T      | V     | G     | D     | Y    | R     | G    | H   | E    | S     | L | V  | I | R | L | L | H | D   | E | E | Q | D | L   | H | F | W | F | Q  | .D | I | E  | E | L | G | K | Q | Y | R   | Q | R | G | L | Y | L | F | A | G | P | V | G | S | G | K | T | T | L | M | H | E | L | S | K | S | L | F | K | Q | Q | V | M | S | I | E   | D   | 166 |   |     |
| NTDB | id | 229   | SPD     | RS09895 | WP | 000249564.1 | .KIASL                                | R       | L    | S    | T      | V     | G     | D     | Y    | R     | G    | H   | E    | S     | L | V  | I | R | L | L | H | D   | E | E | Q | D | L   | H | F | W | F | Q  | .D | I | E  | E | L | G | K | Q | Y | R   | Q | R | G | L | Y | L | F | A | G | P | V | G | S | G | K | T | T | L | M | H | E | L | S | K | S | L | F | K | Q | Q | V | M | S | I | E   | D   | 166 |   |     |
| NTDB | id | 195   | SPR     | RS09430 | WP | 000249564.1 | .KIASL                                | R       | L    | S    | T      | V     | G     | D     | Y    | R     | G    | H   | E    | S     | L | V  | I | R | L | L | H | D   | E | E | Q | D | L   | H | F | W | F | Q  | .D | I | E  | E | L | G | K | Q | Y | R   | Q | R | G | L | Y | L | F | A | G | P | V | G | S | G | K | T | T | L | M | H | E | L | S | K | S | L | F | K | Q | Q | V | M | S | I | E   | D   | 166 |   |     |
| NTDB | id | 160   | SP      | RS10380 | WP | 000249564.1 | .KIASL                                | R       | L    | S    | T      | V     | G     | D     | Y    | R     | G    | H   | E    | S     | L | V  | I | R | L | L | H | D   | E | E | Q | D | L   | H | F | W | F | Q  | .D | I | E  | E | L | G | K | Q | Y | R   | Q | R | G | L | Y | L | F | A | G | P | V | G | S | G | K | T | T | L | M | H | E | L | S | K | S | L | F | K | Q | Q | V | M | S | I | E   | D   | 166 |   |     |
| NTDB | id | 584   | DLJ51   | RS00890 | WP | 019777327.1 | GETA                                  | A       | L    | R    | L      | S     | T     | V     | G    | D     | Y    | Q   | C    | R     | E | S  | L | V | I | R | L | L   | F | D | R | K | R   | E | L | K | F | W  | F  | D | .G | L | N | A | L | L | P | K   | I | I | G | R | G | L | Y | L | F | S | G | P | V | G | S | G | K | T | T | L | M | Y | E | L | V | S | R | K | Y | P | D | S | Q | I | T   | I   | E   | D | 169 |
| NTDB | id | 41048 | SGPB    | RS00605 | WP | 003062917.1 | EEEI                                  | S       | L    | R    | L      | S     | S     | V     | G    | D     | Y    | R   | G    | R     | E | S  | L | V | I | R | L | L   | Y | S | G | R | H   | D | L | Q | Y | W  | F  | D | .G | M | K | N | I | L | E | A</ |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |     |     |   |     |

|      |    |     |         |         |    |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |     |  |     |
|------|----|-----|---------|---------|----|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|--|-----|
| NTDB | id | 617 | LCA     | RS06480 | WP | 011375001.1 | P | T | E | I | V | A | P | E | F | L | Q | L | Q | V | N | D | N | A | G | L | S | Y | A | E | L | L | K | I | S | L | R | L | R | P | D | T | L | I | I | G | E | I | R | D | L | E | T | A | Q | Y | V | V | S | A | A | L | S | G | H | L | V | L | S | T | I | H | A | R | S | T | Q | G | V | A | R | L | L | D | L | G | T | S | E | L |   | 253 |  |     |
| NTDB | id | 586 | KW2     | RS10855 | WP | 011836048.1 | P | V | E | L | I | D | S | D | F | I | Q | L | Q | V | N | D | V | I | G | N | S | Y | D | E | L | I | K | L | S | L | R | H | R | P | D | L | L | I | V | G | E | I | R | D | Q | Q | T | A | R | A | V | I | R | A | S | L | T | G | Y | T | V | F | S | T | I | H | A | A | S | V | K | G | V | Q | R | L | L | E | L | C | L | S | D | W |   | 250 |  |     |
| NTDB | id | 429 | SGO     | RS09420 | WP | 012130942.1 | P | V | E | I | K | Q | E | D | M | L | Q | L | Q | L | N | E | A | I | G | L | T | Y | E | N | L | I | K | L | S | L | R | H | R | P | D | L | L | I | I | G | E | I | R | D | S | E | T | A | R | A | V | V | R | A | S | L | T | G | A | T | V | F | S | T | I | H | A | K | S | I | P | G | V | Y | E | R | L | L | E | L | G | V | S | E |   | 251 |  |     |
| NTDB | id | 500 | SM12261 | RS00945 | WP | 000249545.1 | P | V | E | I | K | Q | D | N | M | L | Q | L | Q | L | N | E | A | I | G | L | T | Y | E | N | L | I | K | L | S | L | R | H | R | P | D | L | L | I | I | G | E | I | R | D | S | E | T | A | R | A | V | V | R | A | S | L | T | G | A | T | V | F | S | T | I | H | A | K | S | I | P | I | R | G | V | Y | E | R | L | L | E | L | G | V | S | E   |  | 251 |
| NTDB | id | 270 | KZH43   | RS09265 | WP | 000249564.1 | P | V | E | I | K | Q | D | N | M | L | Q | L | Q | L | N | E | A | I | G | L | T | Y | E | N | L | I | K | L | S | L | R | H | R | P | D | L | L | I | I | G | E | I | R | D | S | E | T | A | R | A | V | V | R | A | S | L | T | G | A | T | V | F | S | T | I | H | A | K | S | I | P | I | R | G | V | Y | E | R | L | L | E | L | G | V | S | E   |  | 251 |
| NTDB | id | 229 | SPD     | RS09895 | WP | 000249564.1 | P | V | E | I | K | Q | D | N | M | L | Q | L | Q | L | N | E | A | I | G | L | T | Y | E | N | L | I | K | L | S | L | R | H | R | P | D | L | L | I | I | G | E | I | R | D | S | E | T | A | R | A | V | V | R | A | S | L | T | G | A | T | V | F | S | T | I | H | A | K | S | I | P | I | R | G | V | Y | E | R | L | L | E | L | G | V | S | E   |  | 251 |
| NTDB | id | 195 | SPR     | RS09430 | WP | 000249564.1 | P | V | E | I | K | Q | D | N | M | L | Q | L | Q | L | N | E | A | I | G | L | T | Y | E | N | L | I | K | L | S | L | R | H | R | P | D | L | L | I | I | G | E | I | R | D | S | E | T | A | R | A | V | V | R | A | S | L | T | G | A | T | V | F | S | T | I | H | A | K | S | I | P | I | R | G | V | Y | E | R | L | L | E | L | G | V | S | E   |  | 251 |
| NTDB | id | 160 | SP      | RS10380 | WP | 000249564.1 | P | V | E | I | K | Q | D | N | M | L | Q | L | Q | L | N | E | A | I | G | L | T | Y | E | N | L | I | K | L | S | L | R | H | R | P | D | L | L | I | I | G | E | I | R | D | S | E | T | A | R | A | V | V | R | A | S | L | T | G | A | T | V | F | S | T | I | H | A | K | S | I | P | I | R | G | V | Y | E | R | L | L | E | L | G | V | S | E   |  | 251 |

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X non conserved  
X similar  
X ≥ 50% conserved