

|                 |                              |          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |   |   |   |    |   |   |   |   |   |   |     |    |       |    |   |     |    |     |     |    |
|-----------------|------------------------------|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|---|---|---|----|---|---|---|---|---|---|-----|----|-------|----|---|-----|----|-----|-----|----|
| NTDB id 85      | BSU 00860 NP 387967.1        | ..MMFGRF | T | E | R | A | Q | K | V | L | A | L | A | Q | E | E | A | L | R | L | G | H | N | N | I | G | T | E | H | I | L | L | G | L | V | R | E | G | E | I | A | K | A | L | Q | A | L | G | L | G | S | E | K | I | Q | K  | E  | V | E | S | .. | L | I | G | R | G | Q | ... | 72 |       |    |   |     |    |     |     |    |
| NTDB id 610     | V4T04 RS10165 WP 012897346.1 | M        | K | F | E | N | I | K | Y | T | P | T | L | D | R | I | L | E | K | A | E | E | Y | A | H | Q | Y | Q | Y | G | T | T | E | S | A | H | L | L | A | A | M | A | T | T | S | G | S | I | A | Y | S | L | L | A | G | M  | N  | V | D | S | S  | D | L | L | I | D | L | E   | D  | ..... | L  | . | S   | S  | H   | ... | 72 |
| NTDB id 377     | SMU RS09275 WP 002262344.1   | ...      | M | T | D | Y | S | L | K | M | Q | E | V | F | R | L | A | Q | F | E | A | A | R | F | E | S | S | Y | L | E | S | H | V | L | L | A | M | V | E | I | D | S | V | A | G | L | S | F | A | E | F | E | A | D | V | R  | F  | E | D | Y | Q  | A | A | L | L | A | I | G   | K  | K     | P  | K | S   | S  | ... | 76  |    |
| NTDB id 329     | STU RS10020 WP 011225298.1   | ...      | M | T | I | Y | S | R | K | M | Q | A | I | F | H | R | A | Q | L | E | A | E | R | F | E | S | P | E | L | T | W | H | V | L | L | A | M | V | E | P | G | S | V | A | Y | L | T | F | D | E | D | R | I | H | S | E  | E  | T | A | A | V  | L | A | M | E | K | R | P   | K  | D     | L  | S | ... | 76 |     |     |    |
| NTDB id 297     | STER RS00545 WP 011680614.1  | ...      | M | T | I | Y | S | R | K | M | Q | A | I | F | H | R | A | Q | L | E | A | E | R | F | E | S | P | E | L | T | W | H | V | L | L | A | M | V | E | P | G | S | V | A | Y | L | T | F | D | E | D | R | I | H | S | E  | E  | T | A | A | V  | L | A | M | E | K | R | P   | K  | D     | L  | S | ... | 76 |     |     |    |
| NTDB id 1129461 | GPW51 RS09180 WP 012027858.1 | .....    | M | K | I | S | R | G | L | Q | G | V | Y | E | D | A | Q | L | I | A | Q | R | Y | S | S | D | Y | L | E | T | W | H | L | L | A | F | V | I | N | P | D | T | V | A | G | A | L | A | E | Y | P | A | D | V | L | .. | D  | Y | E | R | A  | V | Y | M | V | M | G | R   | R  | Y     | H  | E | ..  | 71 |     |     |    |
| NTDB id 287     | SP RS11210 WP 001109712.1    | .....    | M | N | Y | S | K | A | L | N | E | C | I | E | S | A | Y | M | V | A | G | H | F | G | A | R | Y | L | E | S | W | H | L | L | I | A | M | S | N | H | S | Y | S | V | A | G | A | T | L | N | D | P | Y | E | M | D  | .. | R | L | E | E  | V | A | L | E | T | D | Y   | S  | ...   | 70 |   |     |    |     |     |    |
| NTDB id 290     | KZH43 RS10025 WP 001109677.1 | .....    | M | N | Y | S | K | A | L | N | E | C | I | E | S | A | Y | M | V | A | G | H | F | G | A | R | Y | L | E | S | W | H | L | L | I | A | M | S | N | H | S | Y | S | V | A | G | A | T | L | N | D | P | Y | E | M | D  | .. | R | L | E | E  | V | A | L | E | T | D | Y   | S  | ...   | 70 |   |     |    |     |     |    |
| NTDB id 289     | SPD RS10700 WP 001109677.1   | .....    | M | N | Y | S | K | A | L | N | E | C | I | E | S | A | Y | M | V | A |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |    |   |   |   |    |   |   |   |   |   |   |     |    |       |    |   |     |    |     |     |    |

[illegible][illegible]

|                 |                              |                                                                                   |     |
|-----------------|------------------------------|-----------------------------------------------------------------------------------|-----|
| NTDB id 85      | BSU 00860 NP 387967.1        | NPVLIGEPGVGKTAIAEGLAQQTINNEVPEILRDKRVTLDMGTTVVAGTKYRGEFEDRLKKVMDEIRQAGNIILFIDELH  | 282 |
| NTDB id 610     | V4T04 RS10165 WP 012897346.1 | NPVLVGEPGVGKSAITIEGLAQRIVNGQVPIGLMNSRIMAINMATVVAGTKFRGEFEDRLTAIVEEVSSDPDVIIFIDELH | 295 |
| NTDB id 377     | SMU RS09275 WP 002262344.1   | NPVLVGDAVGKKTALAYGLAQRIVDSAPVFELADMKVLELDMMSVVAGTRFRGDFEERMNQIIDIEADGHTVLFIDELH   | 312 |
| NTDB id 329     | STU RS10020 WP 011225298.1   | NPVLVGEAGVGKTAALGLAQRIASGEVVPFELADMRILELDMMSVVAGTRFRGDFEERMNQIIDIEADGKHTLFIDELH   | 315 |
| NTDB id 297     | STER RS00545 WP 011680614.1  | NPVLVGEAGVGKKTALALGLAQRIASGEVVPFELADMRILELDMMSVVAGTRFRGDFEERMNQIIDIEADGKHTLFIDELH | 315 |
| NTDB id 1129461 | GPW51 RS09180 WP 012027858.1 | NPVLVGDAVGKKTALALGLAQRIANGVVPASLVNMRILELDMNVITAGTRFRGDFEERMNNIINDIEEDGRVILFIDELH  | 309 |
| NTDB id 287     | SP RS11210 WP 001109712.1    | NPVLVGDAVGKKTALALGLAQRIASGDVPAEAMAKMRVLELDMNVVAGTRFRGDFEERMNNIINKDIEEDGQVILFIDELH | 308 |
| NTDB id 290     | KZH43 RS10025 WP 001109677.1 | NPVLVGDAVGKKTALALGLAQRIASGDVPAEAMAKMRVLELDMNVVAGTRFRGDFEERMNNIINKDIEEDGQVILFIDELH | 308 |
| NTDB id 289     | SPD RS10700 WP 001109677.1   | NPVLVGDAVGKKTALALGLAQRIASGDVPAEAMAKMRVLELDMNVVAGTRFRGDFEERMNNIINKDIEEDGQVILFIDELH | 308 |
| consensus       |                              | NPVLIGEPGVGKTAIAEGLAQQTINNEVPEILRDKRVTLDMGTTVVAGTKYRGEFEDRLKKVMDEIRQAGNIILFIDELH  |     |



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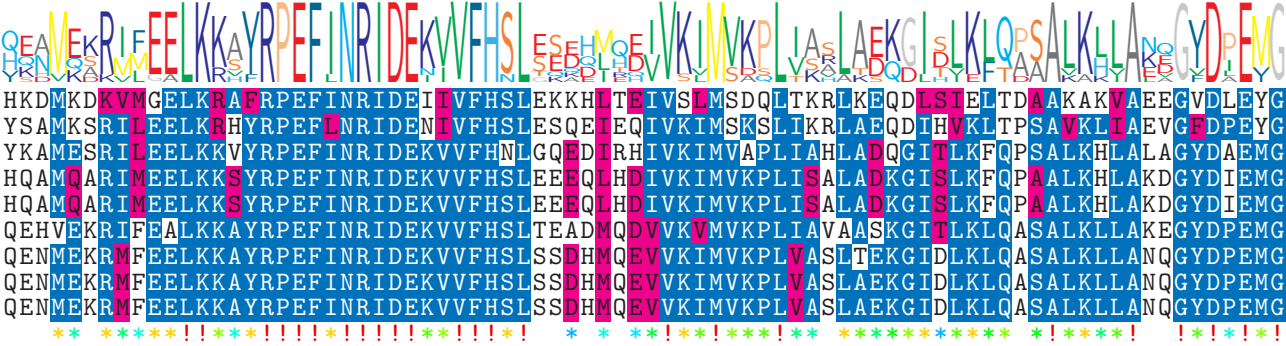
NTDB id 85 BSU 00860 NP 387967.1  
NTDB id 610 V4T04 RS10165 WP 012897346.1  
NTDB id 377 SMU RS09275 WP 002262344.1  
NTDB id 329 STU RS10020 WP 011225298.1  
NTDB id 297 STER RS00545 WP 011680614.1  
NTDB id 1129461 GPW51 RS09180 WP 012027858.1  
NTDB id 287 SP RS11210 WP 001109712.1  
NTDB id 290 KZH43 RS10025 WP 001109677.1  
NTDB id 289 SPD RS10700 WP 001109677.1  
consensus



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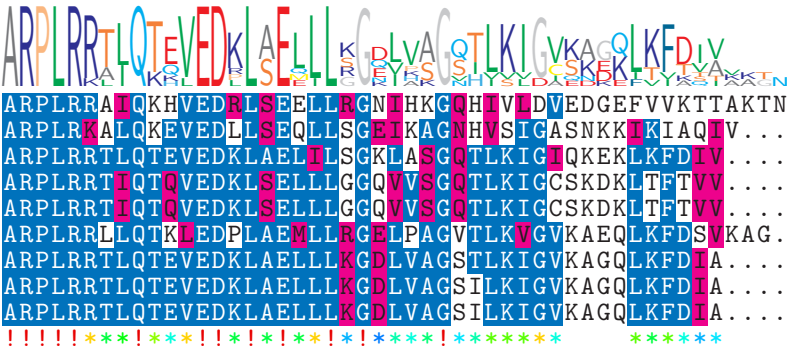
NTDB id 85 BSU 00860 NP 387967.1  
NTDB id 610 V4T04 RS10165 WP 012897346.1  
NTDB id 377 SMU RS09275 WP 002262344.1  
NTDB id 329 STU RS10020 WP 011225298.1  
NTDB id 297 STER RS00545 WP 011680614.1  
NTDB id 1129461 GPW51 RS09180 WP 012027858.1  
NTDB id 287 SP RS11210 WP 001109712.1  
NTDB id 290 KZH43 RS10025 WP 001109677.1  
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NTDB id 85 BSU 00860 NP 387967.1  
NTDB id 610 V4T04 RS10165 WP 012897346.1  
NTDB id 377 SMU RS09275 WP 002262344.1  
NTDB id 329 STU RS10020 WP 011225298.1  
NTDB id 297 STER RS00545 WP 011680614.1  
NTDB id 1129461 GPW51 RS09180 WP 012027858.1  
NTDB id 287 SP RS11210 WP 001109712.1  
NTDB id 290 KZH43 RS10025 WP 001109677.1  
NTDB id 289 SPD RS10700 WP 001109677.1  
consensus



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  non conserved  
  similar  
  ≥ 50% conserved