

|                                                 |                                                   |                           |                         |             |           |                 |                 |       |
|-------------------------------------------------|---------------------------------------------------|---------------------------|-------------------------|-------------|-----------|-----------------|-----------------|-------|
| NTDB id 615 LCA RS02545 WP 011374200.1          | .MGQQVIACGRQFTAAQLADTQNNNY...SLPQIKRRPAFLRVKHLRV  | CQRCQQ.VVPPQTC            | LPDGRHYCAQCLLFGRL       | 74          |           |                 |                 |       |
| NTDB id 593 KW2 RS05130 WP 021037147.1          | MNLIILENLIGHLLEKDISAFNNFTDQVNNENKLIKIGAMTSVNANKVR | CNRCGTIH                  | IKTNVKLPIGAFFCPTCLELGRV | 80          |           |                 |                 |       |
| NTDB id 145761 SpyM6JRS4 RS06425 WP 011184811.1 | .MESIENSYGRILLLESQLPDSA.....                      | KQLAQPLKSVVILRGKMICQRCHY. | QLDEEARLP               | SGAYYCRFCLV | FGRN      | 69              |                 |       |
| NTDB id 277 KZH4 RS10090 WP 000867601.1         | .MKVNL                                            | DYLGRLFTENELTEEE.....     | RQLAEKLPAMRKEKGKLF      | CQRCNS.     | TILEEWYLP | IGAYYCRECLLMKRV | 69              |       |
| NTDB id 236 SPD RS10765 WP 000867601.1          | .MKVNL                                            | DYLGRLFTENELTEEE.....     | RQLAEKLPAMRKEKGKLF      | CQRCNS.     | TILEEWYLP | IGAYYCRECLLMKRV | 69              |       |
| NTDB id 202 SPR RS10250 WP 000867601.1          | .MKVNL                                            | DYLGRLFTENELTEEE.....     | RQLAEKLPAMRKEKGKLF      | CQRCNS.     | TILEEWYLP | IGAYYCRECLLMKRV | 69              |       |
| NTDB id 167 SP RS11275 WP 000867616.1           | .MKVNL                                            | DYLGRLFTENELTEEE.....     | RQLAEKLPAMRKEKGKLF      | CQRCNS.     | TILEEWYLP | IGAYYCRECLLMKRV | 69              |       |
| NTDB id 507 SM12261 RS09240 WP 000867722.1      | .MKVNP                                            | NLYLGRFTENELTEEE.....     | RQLAEKLPAMRKEKGKLF      | CQRCNS.     | TILEEWYLP | IGAYYCRECLLMKRV | 69              |       |
| NTDB id 535 SMSK321 RS10515 WP 000867726.1      | .MKVNP                                            | NLYLGRFTENELTKEE.....     | RQLAEKLPAMRKEKGKLF      | CQRCDS.     | AILD      | EWYLP           | IGAYYCRECLLMKRV | 69    |
| consensus                                       | *****                                             | !!*****                   | *****                   | *****       | *****     | *****           | *****           | ***** |

|                                                 |                                                                                     |     |
|-------------------------------------------------|-------------------------------------------------------------------------------------|-----|
| NTDB id 615 LCA RS02545 WP 011374200.1          | VEGDWLYTVPECHLFENNIPKLTWEGQLTPHKEKAQAVVEVVTQKRHVLTAVTGAGKTEMLFQGILVALQKGQRVCLAA     | 154 |
| NTDB id 593 KW2 RS05130 WP 021037147.1          | RSDEYFYHLPPQQDFPEKT..YLRTWGKLTENQEKSIDALCQQITNNQKLLVQA VTGAGKTEMIYQLIEQILSHGGSSVGLA | 158 |
| NTDB id 145761 SpyM6JRS4 RS06425 WP 011184811.1 | QSDKLLYAIPPMHFPGKN..YLVWSGQLTA YQEIIISQQLLINMQNQKTTLVHAVTGS GKTEMIYAAIEAVINTGGWVCIA | 147 |
| NTDB id 277 KZH43 RS10090 WP 000867601.1        | RSDQTLYYFPQEDFFPKQD..VLKWRGQLTPFQEKVSEGLLQAVDKQKPTLVHAVTGAGKTEMIYQVVAKVINAGGAVCLA   | 147 |
| NTDB id 236 SPD RS10765 WP 000867601.1          | RSDQTLTYFFPQEDFFPKQD..VLKWRGQLTPFQEKVSEGLLQAVDKQKPTLVHAVTGAGKTEMIYQVVAKVINAGGAVCLA  | 147 |
| NTDB id 202 SPR RS10250 WP 000867601.1          | RSDQTLTYYFPQEDFFPKQD..VLKWRGQLTPFQEKVSEGLLQAVDKQKPTLVHAVTGAGKTEMIYQVVAKVINAGGAVCLA  | 147 |
| NTDB id 167 SP RS11275 WP 000867616.1           | RSDQTLTYYFPQEDFFPKQD..VLKWRGQLTPFQEKVSEGLLQAVDKQKPTLVHAVTGAGKTEMIYQVVAKVINAGGAVCLA  | 147 |
| NTDB id 507 SM12261 RS09240 WP 000867722.1      | RSDQSLEYFPQEDFFPKQD..VLKWRGQLTPFDKVS QGLLQAVDKQEP SLVHAVTGAGKTEMIYQVVAKVINAGGAVCLA  | 147 |
| NTDB id 535 SMSK321 RS10515 WP 000867726.1      | RSDQVLYFFPQEDFAKQD..ILKWRGQLTPFQEKVSEGLIQA VDKQEPILVHAVTGAGKTEMIYQVVAKVINAGGAVCLA   | 147 |
| consensus                                       | * * * * *                                                                           |     |

[illegible][illegible]

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NTDB id 615 LCA RS02545 WP 011374200.1
NTDB id 593 KW2 RS05130 WP 021037147.1
NTDB id 145761 SpyM6JRS4 RS06425 WP 011184811.1
NTDB id 277 KZH43 RS10090 WP 000867601.1
NTDB id 236 SPD RS10765 WP 000867601.1
NTDB id 202 SPR RS10250 WP 000867601.1
NTDB id 167 SP RS11275 WP 000867616.1
NTDB id 507 SM12261 RS09240 WP 000867722.1
NTDB id 535 SMSK321 RS10515 WP 000867726.1
consensus
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NTDB id 236 SPD RS10765 WP 000867601.1
NTDB id 202 SPR RS10250 WP 000867601.1
NTDB id 167 SP RS11275 WP 000867616.1
NTDB id 507 SM12261 RS09240 WP 000867722.1
NTDB id 535 SMSK321 RS10515 WP 000867726.1
consensus
```

-  non conserved
-  similar
-  >50% conserved