

|                                             |                                                                                   |    |
|---------------------------------------------|-----------------------------------------------------------------------------------|----|
| NTDB id 1127 NGFG RS10560 WP 003703428.1    | .....                                                                             | 0  |
| NTDB id 1126 NGFG RS09375 WP 003703428.1    | .....                                                                             | 0  |
| NTDB id 1125 NGFG RS07215 WP 003703428.1    | .....                                                                             | 0  |
| NTDB id 1108 NGFG RS06525 WP 003703428.1    | .....                                                                             | 0  |
| NTDB id 153 SP RS04730 WP 000387344.1       | MEAIIEKIKEYKIIIVICTGLGLLVGGFFLLKPAPQTPVKETNLQAEVAAVSKDSSTEKEVKKEEKEEPLEQDLITVDVKG | 80 |
| NTDB id 1272 LPP RS04360 WP 010946546.1     | .....                                                                             | 0  |
| NTDB id 1249 GC085 RS04230 WP 010946546.1   | .....                                                                             | 0  |
| NTDB id 1159 ABDM36 RS04765 WP 001166105.1  | .....                                                                             | 0  |
| NTDB id 1150 A1552VC RS08580 WP 001166105.1 | .....                                                                             | 0  |
| NTDB id 1395 DSB67 RS04445 WP 010649155.1   | .....                                                                             | 0  |
| NTDB id 378003 FR741 RS10700 WP 031780151.1 | .....                                                                             | 0  |
| NTDB id 1294 VP RS04495 WP 021449594.1      | .....                                                                             | 0  |
| NTDB id 1362 HI 1008 AAC22669.1             | .....                                                                             | 0  |
| NTDB id 1382 A4U84 RS07375 WP 062924234.1   | .....                                                                             | 0  |
| consensus                                   | .....                                                                             | 0  |

|                |                                |                                  |                                                  |     |
|----------------|--------------------------------|----------------------------------|--------------------------------------------------|-----|
| NTDB id 1127   | NGFG RS10560 WP 003703428.1    | .....MSRGGATP...YRFLLI           | RHIVARCGLLFATLKGKTMKKMF...VLFC...MLFSCAFS        | 49  |
| NTDB id 1126   | NGFG RS09375 WP 003703428.1    | .....MSRGGATP...YRFLLI           | RHIVARCGLLFATLKGKTMKKMF...VLFC...MLFSCAFS        | 49  |
| NTDB id 1125   | NGFG RS07215 WP 003703428.1    | .....MSRGGATP...YRFLLI           | RHIVARCGLLFATLKGKTMKKMF...VLFC...MLFSCAFS        | 49  |
| NTDB id 1108   | NGFG RS06525 WP 003703428.1    | .....MSRGGATP...YRFLLI           | RHIVARCGLLFATLKGKTMKKMF...VLFC...MLFSCAFS        | 49  |
| NTDB id 153    | SP RS04730 WP 000387344.1      | AVKSPGIYDLPVGSRVNDAVQKAGGLTEQADS | KSLSNLAQKVVSDEALVYVPTK.GEEAAVSQQT.....GSGTASSTSK | 151 |
| NTDB id 1272   | LPP RS04360 WP 010946546.1     | .....MKAR...LIAILL               | SFIVIPFSSQAENEPQK.....TPAKQVLV                   | 35  |
| NTDB id 1249   | GC085 RS04230 WP 010946546.1   | .....MKAR...LIAILL               | SFIVIPFSSQAENEPQK.....TPAKQVLV                   | 35  |
| NTDB id 1159   | ABDM36 RS04765 WP 001166105.1  | .....MQIKTKI                     | VTLFLSLCLPTLPLLANAETAPAA.....QVEEGI              | 38  |
| NTDB id 1150   | A1552VC RS08580 WP 001166105.1 | .....MQIKTKI                     | VTLFLSLCLPTLPLLANAETAPAA.....QVEEGI              | 38  |
| NTDB id 1395   | DSB67 RS04445 WP 010649155.1   | .....MKWML                       | TLCLLLAPMSWAE.TKTKA.....DKYEGI                   | 30  |
| NTDB id 378003 | FR741 RS10700 WP 031780151.1   | .....MKWIL                       | TLCLFVFPFMSAA..DSAT.....DKYEGI                   | 29  |
| NTDB id 1294   | VP RS04495 WP 021449594.1      | .....MKWIL                       | TLCLVVFAPLSLAA..DTKA.....DKYEGI                  | 29  |
| NTDB id 1362   | HI 1008 AAC22669.1             | .....MKTL                        | FTSVVLGALVVSSSFAEEKATXQTAQSVVTTQAEAQVAPAV        | 47  |
| NTDB id 1382   | A4U84 RS07375 WP 062924234.1   | .....MKKLSRYTFS                  | LLFG.LFSATTFAEEKVTTSTEHTPVVMQQ.VAATQKVN          | 47  |
| consensus      |                                | *                                | * * * * *                                        | *   |

|           |    |        |         |         |            |             |                                                                                    |     |
|-----------|----|--------|---------|---------|------------|-------------|------------------------------------------------------------------------------------|-----|
| NTDB      | id | 1127   | NGFG    | RS10560 | WP         | 003703428.1 | LAAVNINAAASQQELE.ALPGIGPAKAKAIAEYRAQNGAFKSVDLLIKVKGIGP AVLAKLKDQASVGAPAPKGPAKPVLPA | 128 |
| NTDB      | id | 1126   | NGFG    | RS09375 | WP         | 003703428.1 | LAAVNINAAASQQELE.ALPGIGPAKAKAIAEYRAQNGAFKSVDLLIKVKGIGP AVLAKLKDQASVGAPAPKGPAKPVLPA | 128 |
| NTDB      | id | 1125   | NGFG    | RS07215 | WP         | 003703428.1 | LAAVNINAAASQQELE.ALPGIGPAKAKAIAEYRAQNGAFKSVDLLIKVKGIGP AVLAKLKDQASVGAPAPKGPAKPVLPA | 128 |
| NTDB      | id | 1108   | NGFG    | RS06525 | WP         | 003703428.1 | LAAVNINAAASQQELE.ALPGIGPAKAKAIAEYRAQNGAFKSVDLLIKVKGIGP AVLAKLKDQASVGAPAPKGPAKPVLPA | 128 |
| NTDB      | id | 153    | SP      | RS04730 | WP         | 000387344.1 | EKKVNTNKASLEELK.QVKLGIGKKAQDIDHREANGKFKSVDDELKKVSGIGGKTIEKLKDYVTVD.....            | 216 |
| NTDB      | id | 1272   | LPP     | RS04360 | WP         | 010946546.1 | KGKINTNTADVSLTGSFKGIGKKRAEAIAYRENHQGFKSLEELA EVKGIGQRFVDKNREKLKEIFVIN.....         | 105 |
| NTDB      | id | 1249   | GC085   | RS04230 | WP         | 010946546.1 | KGKINTNTADVSLTGSFKGIGKKRAEAIAYRENHQGFKSLEELA EVKGIGQRFVDKNREKLKEIFVIN.....         | 105 |
| NTDB      | id | 1159   | ABDM36  | RS04765 | WP         | 001166105.1 | VITVNINTASAEBELATLLKGIGLKKAQAIVDYREANGPFTHIDDLTNVKGIGEATVRNNAARILL.....            | 103 |
| NTDB      | id | 1150   | A1552VC | RS08580 | WP         | 001166105.1 | VITVNINTASAEBELATLLKGIGLKKAQAIVDYREANGPFTHIDDLTNVKGIGEATVRNNAARILL.....            | 103 |
| NTDB      | id | 1395   | DSB67   | RS04445 | WP         | 010649155.1 | EITVMVNSATAQEELATLLIGEGEKKAQDIVRYNEHGPFKTAADLT KVKGIGEATVRKNEDRILL.....            | 95  |
| NTDB      | id | 378003 | FR741   | RS10700 | WP         | 031780151.1 | EITVNINTASAEBELATMLKGIGEGEKKAQSIVDYREEHGPFKTAAD LKS VKGIGEATVKKNEDRILL.....        | 94  |
| NTDB      | id | 1294   | VP      | RS04495 | WP         | 021449594.1 | EITVNINTASAEBELATMLKGIGEGEKKAQSIVDYRTEHGPFKTAAD LT NV KGIGEATIKKNEDRILL.....       | 94  |
| NTDB      | id | 1362   | HI      | 1008    | AAC22669.1 |             | SDKLNINTATASEIQKSLTGIGAKKAEAVIQYREKHGNFXNAEQ LLLEVQGIGKATLEKNRDRIIF.....           | 112 |
| NTDB      | id | 1382   | A4U84   | RS07375 | WP         | 062924234.1 | ANVVNINTATASEIQDKLVGIGAKKAQAIVEYREKNGKFLNVEQL TEVS GIGKATLEKNRDCIVIE.....          | 113 |
|           |    |        |         |         |            |             | * ! * ! * ! *      *      * ! * ! * ! * ! * ! * ! * ! * ! * ! * ! * ! * ! *        |     |
| consensus |    |        |         |         |            |             |                                                                                    |     |

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|                                             |     |     |
|---------------------------------------------|-----|-----|
| NTDB id 1127 NGFG RS10560 WP 003703428.1    | VKK | 131 |
| NTDB id 1126 NGFG RS09375 WP 003703428.1    | VKK | 131 |
| NTDB id 1125 NGFG RS07215 WP 003703428.1    | VKK | 131 |
| NTDB id 1108 NGFG RS06525 WP 003703428.1    | VKK | 131 |
| NTDB id 153 SP RS04730 WP 000387344.1       | ... | 216 |
| NTDB id 1272 LPP RS04360 WP 010946546.1     | ... | 105 |
| NTDB id 1249 GCO85 RS04230 WP 010946546.1   | ... | 105 |
| NTDB id 1159 ABDM36 RS04765 WP 001166105.1  | ... | 103 |
| NTDB id 1150 A1552VC RS08580 WP 001166105.1 | ... | 103 |
| NTDB id 1395 DSB67 RS04445 WP 010649155.1   | ... | 95  |
| NTDB id 378003 FR741 RS10700 WP 031780151.1 | ... | 94  |
| NTDB id 1294 VP RS04495 WP 021449594.1      | ... | 94  |
| NTDB id 1362 HI 1008 AAC22669.1             | ... | 112 |
| NTDB id 1382 A4U84 RS07375 WP 062924234.1   | ... | 113 |
| consensus                                   |     |     |

-  non conserved
-  similar
-  ≥ 50% conserved