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|                 |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |
|-----------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| NTDB id 1028    | TT RS08215 WP 011173991.1      | MSVLTI <sup>1</sup> GD <sup>1</sup> RLGA <sup>1</sup> LLD <sup>1</sup> RG <sup>1</sup> LD <sup>1</sup> DL <sup>1</sup> LRALERH <sup>1</sup> EVGG <sup>1</sup> LA <sup>1</sup> VL <sup>1</sup> YD <sup>1</sup> SG <sup>1</sup> Y <sup>1</sup> ER <sup>1</sup> IA <sup>1</sup> ST <sup>1</sup> IE <sup>1</sup> ST <sup>1</sup> GI <sup>1</sup> PLV <sup>1</sup> NL <sup>1</sup> LR <sup>1</sup> V <sup>1</sup> ET <sup>1</sup> BP <sup>1</sup> SK <sup>1</sup> | 80 |
| NTDB id 1306    | DR RS10060 WP 027479822.1      | MSVLTIGDKRLGAALLDAGLLTDEELQRALERHREVGGS <sup>1</sup> LA <sup>1</sup> EV <sup>1</sup> LVD <sup>1</sup> MGL <sup>1</sup> LSERRIAQTIEDRFGIPLVELHRVEIPPKVK                                                                                                                                                                                                                                                                                                       | 79 |
| NTDB id 1168    | A1552VC RS11070 WP 000957200.1 | .MALSIGD <sup>1</sup> RRLLGAILLDQGYLG <sup>1</sup> DNDLQRALERHSEVGGRLADVLIDSGMVGEKRIARAIEEALGIPLVNLLAVQPDPAAL                                                                                                                                                                                                                                                                                                                                                | 0  |
| NTDB id 1293    | VP RS12240 WP 005479695.1      | .....                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0  |
| NTDB id 1401    | DSB67 RS12665 WP 010643259.1   | .....                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0  |
| NTDB id 1251    | GC085 RS07725 WP 011946523.1   | .....                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0  |
| NTDB id 1110    | NGFG RS09235 WP 003689817.1    | .....                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0  |
| NTDB id 1008142 | AAN986 RS05765 WP 034364744.1  | .....                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0  |
| NTDB id 1058    | ABD1 RS01615 WP 001274986.1    | .....                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0  |
| NTDB id 1018    | ACIAD RS01685 WP 004920473.1   | .....                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0  |
| consensus       |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |

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|-----------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| NTDB id 1028    | TT RS08215 WP 011173991.1      | REY <sup>1</sup> RA <sup>1</sup> EL <sup>1</sup> AL <sup>1</sup> RA <sup>1</sup> PFAL <sup>1</sup> SEE <sup>1</sup> SG <sup>1</sup> RY <sup>1</sup> VA <sup>1</sup> Y <sup>1</sup> NP <sup>1</sup> LS <sup>1</sup> IF <sup>1</sup> SE <sup>1</sup> EY <sup>1</sup> ED <sup>1</sup> SG <sup>1</sup> GY <sup>1</sup> EPYQ <sup>1</sup> LR <sup>1</sup> EA <sup>1</sup> Y <sup>1</sup> MA <sup>1</sup> AR <sup>1</sup> HY <sup>1</sup> PELGL <sup>1</sup> EY <sup>1</sup> Y <sup>1</sup> PSG <sup>1</sup> | 158 |
| NTDB id 1306    | DR RS10060 WP 027479822.1      | ALLPAEKAKELKAIPFALDEEAGVVRVAFLNPLDTLSLEEVEDLTGLVVEPYQTTKSAFLYALAKHYPELGLPVPPP..P                                                                                                                                                                                                                                                                                                                                                                                                                       | 157 |
| NTDB id 1168    | A1552VC RS11070 WP 000957200.1 | RSIRPQTALNLQAFPPFALE..GDRLRVALVDPLSSFSIETLEDDSGFDIEPYQALREEVMWAIATHYPELGL <sup>1</sup> EIVVPSGA                                                                                                                                                                                                                                                                                                                                                                                                        | 0   |
| NTDB id 1293    | VP RS12240 WP 005479695.1      | .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0   |
| NTDB id 1401    | DSB67 RS12665 WP 010643259.1   | .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0   |
| NTDB id 1251    | GC085 RS07725 WP 011946523.1   | .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0   |
| NTDB id 1110    | NGFG RS09235 WP 003689817.1    | .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0   |
| NTDB id 1008142 | AAN986 RS05765 WP 034364744.1  | .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0   |
| NTDB id 1058    | ABD1 RS01615 WP 001274986.1    | .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0   |
| NTDB id 1018    | ACIAD RS01685 WP 004920473.1   | .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0   |
| consensus       |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |     |

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| NTDB id 1028    | TT RS08215 WP 011173991.1      | SGEGQKDLKL <sup>1</sup> GELL <sup>1</sup> LQKGWISREALEEALVEQEKTGDLLGRILV.RKGLPEEALYRALAEQKGL <sup>1</sup> EFLESTEGIVPDPSAA | 237 |
| NTDB id 1306    | DR RS10060 WP 027479822.1      | SDAGRTGGKLGERLITHGYITDAQLQVALDAQQTGEALGATLISQRAITEDQLYEVLAEQEGTTFLPNPSGFHPGEEVL                                            | 237 |
| NTDB id 1168    | A1552VC RS11070 WP 000957200.1 | .....                                                                                                                      | 0   |
| NTDB id 1293    | VP RS12240 WP 005479695.1      | .....                                                                                                                      | 0   |
| NTDB id 1401    | DSB67 RS12665 WP 010643259.1   | .....                                                                                                                      | 0   |
| NTDB id 1251    | GC085 RS07725 WP 011946523.1   | .....                                                                                                                      | 0   |
| NTDB id 1110    | NGFG RS09235 WP 003689817.1    | .....                                                                                                                      | 0   |
| NTDB id 1008142 | AAN986 RS05765 WP 034364744.1  | .....                                                                                                                      | 0   |
| NTDB id 1058    | ABD1 RS01615 WP 001274986.1    | .....                                                                                                                      | 0   |
| NTDB id 1018    | ACIAD RS01685 WP 004920473.1   | .....                                                                                                                      | 0   |
| consensus       |                                |                                                                                                                            |     |

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| NTDB id 1028    | TT RS08215 WP 011173991.1      | .....LMLRSDALRYLAVPYGESEVEVYESDPRHKEAVALLNRPXSHMLTSPBYEELFESYYPQERRLGEALVQEGELSR         | 317 |
| NTDB id 1306    | DR RS10060 WP 027479822.1      | .....LLLLRSDALRYGAVPIGFQNGEVEVVLSDPRHKEAVALLNRPXSHMLTSPBYEELFESYYPQERRLGEALVQEGELSR      | 317 |
| NTDB id 1168    | A1552VC RS11070 WP 000957200.1 | .....GSMRLRADALRLLAVPVDETEQGVTVLTS DPRKRPDIDALIGRPVQLMLTRPRDIERLIEQFYPPQRGRLGEQLVQEGTLSR | 0   |
| NTDB id 1293    | VP RS12240 WP 005479695.1      | .....                                                                                    | 0   |
| NTDB id 1401    | DSB67 RS12665 WP 010643259.1   | .....                                                                                    | 0   |
| NTDB id 1251    | GC085 RS07725 WP 011946523.1   | .....                                                                                    | 0   |
| NTDB id 1110    | NGFG RS09235 WP 003689817.1    | .....                                                                                    | 0   |
| NTDB id 1008142 | AAN986 RS05765 WP 034364744.1  | .....M                                                                                   | 1   |
| NTDB id 1058    | ABD1 RS01615 WP 001274986.1    | .....                                                                                    | 0   |
| NTDB id 1018    | ACIAD RS01685 WP 004920473.1   | .....                                                                                    | 0   |
| consensus       |                                | .....                                                                                    | 0   |

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| NTDB id 1028    | TT RS08215 WP 011173991.1      | .....EALKEALEVQKGLPRAKPLGEITLVELGLARPEDVEEALQKQRRGGGRLEDTLVQSGKLRPEALAAQAVATQLGYPPYVDPEE | 397 |
| NTDB id 1306    | DR RS10060 WP 027479822.1      | .....DQLREALQVQAREGKVKPLGEVITELGFASPDVEDSALQKQNVGGGRLEDTLVQSGKLSPEMLARSLAAQLGYEFLDPIQ    | 397 |
| NTDB id 1168    | A1552VC RS11070 WP 000957200.1 | .....MLTNLVAIIRQAELISATCEQAVVTQVSASGTSVPEALLIELSIFHAQELTEQLSHIFGLPETDLSR                 | 66  |
| NTDB id 1293    | VP RS12240 WP 005479695.1      | .....MHSNLSITLRQKGLLTFSSQEEESLIEQVKASGISMPEALLSSGFFTSSELAEHLSSIFGLSQPELSQ                | 66  |
| NTDB id 1401    | DSB67 RS12665 WP 010643259.1   | .....MLTNLSTVLRQAGILTFSQEEESLIEQVKASGISMPEALLSSGFFQSHELTEHLSSVFGLSCTSLNQ                 | 66  |
| NTDB id 1251    | GC085 RS07725 WP 011946523.1   | .....MALATEEYRIQGIGQLLVLEKLLDKTKAIELHKLAAAEKISLLIQYIVKNKILSAEQIALTAQNFVGPMLDINC          | 74  |
| NTDB id 1110    | NGFG RS09235 WP 003689817.1    | .....MSVGLLRILVQNVVTVVEQAHEYY.NESQACKEVLPMLFSDGVISPKSLAALITARVFSYSILDLRH                 | 65  |
| NTDB id 1008142 | AAN986 RS05765 WP 034364744.1  | .....AVADSSLKNASAVASLPGIGRALISAGKVSQAAEAAAGKAATNRTSFIAELSVAGTLSALEVAETVSTMFSAPLLDLDA     | 81  |
| NTDB id 1058    | ABD1 RS01615 WP 001274986.1    | .....MSALHTSPKFTIGFFRRLVVEEKHVSAAATMTALDAAKRAKQDVTAYLIEEVHLSPSLSLAETISAEFAEPYFDLDV       | 74  |
| NTDB id 1018    | ACIAD RS01685 WP 004920473.1   | .....MSAFTTPPKFSGFIRR LVEEGYVNAQNMQALEKAKFKQDIPVYLIDNFSISPLTIAEIIISLEFGEPLLDLGV          | 74  |
| consensus       |                                | .....*                                                                                   |     |

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|-----------------|--------------------------------|-----------------------------------------------------------------------------------------|-----|
| NTDB id 1028    | TT RS08215 WP 011173991.1      | .....DPPDPGAPLLIPEDLCRRYGVFPHRLEGNRLVLLMKDPRNIALDDVRLALKRKGLNVEVAPAVATEAAITKLIERYFGK    | 477 |
| NTDB id 1306    | DR RS10060 WP 027479822.1      | .....NPPDPKVALMIPETATARRVYVVPVRLQGNLSLVAMKDPRNVFALDDLKLITG.....KEILPAVMAEKDIIRLIERYFGE  | 472 |
| NTDB id 1168    | A1552VC RS11070 WP 000957200.1 | .....YDYANLCQQQLGLRELITRYDALPIAKQGNLLLLAVSDPTLLQAEEEFRFATG.....LQVELALADHRALQAAIRRLYGR  | 141 |
| NTDB id 1293    | VP RS12240 WP 005479695.1      | .....YEYASLCQQQLGLRELITRHNA LPLHRTPTSTLLAVADPTNQQAEDDFRFATG.....LQVELVLADFRELSTAIRRLYGR | 141 |
| NTDB id 1401    | DSB67 RS12665 WP 010643259.1   | .....YEYASLCQTLGLRDLITRHNA LPLNRTSSTLLAVADPTNLQAEEDDFRFATG.....LQVELVLADFRELTAAIRRLYGR  | 141 |
| NTDB id 1251    | GC085 RS07725 WP 011946523.1   | .....IDVGTIPVNLVNEKLIKRRHAMVPLFSRGNTNLYLATDDPSKQASLKEIQFHTG.....LNTHAIVVETDKLSALIDNLLTA | 149 |
| NTDB id 1110    | NGFG RS09235 WP 003689817.1    | .....YPRHRVLMGVLTTEEQMVFEHCVVFRRGDKVFFAVSDPTQMPQIQKTIVSAAG.....I AVELVIVEDDQLAGLLDWVGSR | 140 |
| NTDB id 1008142 | AAN986 RS05765 WP 034364744.1  | .....VDAMRLPQDLIDAKIISTYRVLP LSKRGNRLTVATADPTQGEAAEQIKFTTQ.....LGVDWIIIVEADKLERLIAQQNKS | 156 |
| NTDB id 1058    | ABD1 RS01615 WP 001274986.1    | .....YDTSQIPKDLVDQKLILKHRILPLIQRGQILYVATSNPSNIEAIDAIRFNSK.....LLVEPVIVEHHKLEKVLGQHFAE   | 149 |
| NTDB id 1018    | ACIAD RS01685 WP 004920473.1   | .....FDPALFLKDKIDEKLIQKYRIMPLVHRGHVLYVATSNPTNIEAMDAIRFNSK.....LKVEPIIVEHDKLERLLSEHFVE   | 149 |
| consensus       |                                | .....** * *                                                                             |     |

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NTDB id 1401 DS6B7 RS12665 WP 010643259.1
NTDB id 1251 GC085 RS07725 WP 011946523.1
NTDB id 1110 NGFG RS09235 WP 003689817.1
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consensus

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