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|                                             |                                                                                  |    |
|---------------------------------------------|----------------------------------------------------------------------------------|----|
| NTDB id 1410 SGL RS13950 WP 010873519.1     | MSVLTIGDKRLGAALLDAGLLTDEELQRALERHREVGGSLAEVLVDMGLLSERRIAQTIEDRFGIPLVELHRVEIPPKVK | 0  |
| NTDB id 1028 TT RS08215 WP 011173991.1      | MSVLTIGDKRLGAALLDAGLLTDEELQRALERHREVGGSLAEVLVDMGLLSERRIAQTIEDRFGIPLVELHRVEIPPKVK | 80 |
| 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 1110 NGFG RS09235 WP 003689817.1    | .....                                                                            | 0  |
| NTDB id 1251 GC085 RS07725 WP 011946523.1   | .....                                                                            | 0  |
| NTDB id 384177 FZ919 RS17040 WP 001274990.1 | .....                                                                            | 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 1410 SGL RS13950 WP 010873519.1     | ALLPAEKAKELKAIPFALDEEAGVVRVAFLNPLDTLSLEEVEDLTGLVVEPYQTTKSAFLYALAKHYPELGLPVPPPPSG | 0   |
| NTDB id 1028 TT RS08215 WP 011173991.1      | ALLPAEKAKELKAIPFALDEEAGVVRVAFLNPLDTLSLEEVEDLTGLVVEPYQTTKSAFLYALAKHYPELGLPVPPPPSG | 160 |
| 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 1110 NGFG RS09235 WP 003689817.1    | .....                                                                            | 0   |
| NTDB id 1251 GC085 RS07725 WP 011946523.1   | .....                                                                            | 0   |
| NTDB id 384177 FZ919 RS17040 WP 001274990.1 | .....                                                                            | 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 1410 SGL RS13950 WP 010873519.1     | EGQKDLKLGELLQKGWISREALEEALVEQEKTGDLLGRILVRKGLPEEALYRALAEQKGLEFLESTEGIVPDPSAALLL | 0   |
| NTDB id 1028 TT RS08215 WP 011173991.1      | EGQKDLKLGELLQKGWISREALEEALVEQEKTGDLLGRILVRKGLPEEALYRALAEQKGLEFLESTEGIVPDPSAALLL | 240 |
| 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 1110 NGFG RS09235 WP 003689817.1    | .....                                                                           | 0   |
| NTDB id 1251 GC085 RS07725 WP 011946523.1   | .....                                                                           | 0   |
| NTDB id 384177 FZ919 RS17040 WP 001274990.1 | .....                                                                           | 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 1410 SGL RS13950 WP 010873519.1     | .....MTSSSS                                                                       | 6   |
| NTDB id 1028 TT RS08215 WP 011173991.1      | LRSDALRYGAVPIGFQNGEVEVVLSDRHKEAVAQLLNRPARFYALALPQAWHEELFRRAYPQKNRLGEVLVQEGKLSREAL | 320 |
| 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 1110 NGFG RS09235 WP 003689817.1    | .....                                                                             | 0   |
| NTDB id 1251 GC085 RS07725 WP 011946523.1   | .....                                                                             | 0   |
| NTDB id 384177 FZ919 RS17040 WP 001274990.1 | .....                                                                             | 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 1410   | SGL RS13950 WP 010873519.1     | SKKSRVALRNYPSPFGNKLVAAGCHVDAEQLRQALVQVKKTGRSLPEELKAVTGRELSPELLRQYKKNQLFELKVLYGVD | 86  |
| NTDB id 1028   | TT RS08215 WP 011173991.1      | KEAIEVQKGGLPFAKPLGETLVELGLARPEDVEEALQKQRGGGRLEDTLVQ..SGKLRPEALACA.....VATQLGYGP  | 391 |
| NTDB id 1168   | A1552VC RS11070 WP 000957200.1 | .....MLTNLVALLRQAELISATQEQAVTVQSASGTSVP EALLE..LSIFHAQELTEQ.....LSHIFGLP         | 60  |
| NTDB id 1293   | VP RS12240 WP 005479695.1      | .....MHSNLSTILRRQKGLTFSQEESLIEQVKASGISMP EALLS..SGFFTSSELAEH.....LSSIFGLS        | 60  |
| NTDB id 1401   | DSB67 RS12665 WP 010643259.1   | .....MLTNLSTVLRRQAGILTFSQEESLLEQVKASGISMP EALLS..SGFFQSHELTEH.....LSSVFGLS       | 60  |
| NTDB id 1110   | NGFG RS09235 WP 003689817.1    | .....MSVGLRLRVQNQVVTV EQAEHYH.NESQAGKEVLPMLFS..DGVISP KSLAAL.....IARVFSYS        | 59  |
| NTDB id 1251   | GCO85 RS07725 WP 011946523.1   | ...MALATEEYRLQGTGQLLVLEKLLDKTKAIELHKLAAAEKISLLQYIVK..NKILSAEQIALT.....AAQNFGVP   | 68  |
| NTDB id 384177 | FZ919 RS17040 WP 001274990.1   | ...MSALHTSPKFTGFFRRLVEEKHVSAATMQTALDAAKRAKQDTVAYLIE..EVHLSPSLLAET.....ISAEFAEP   | 68  |
| NTDB id 1058   | ABD1 RS01615 WP 001274986.1    | ...MSALHTSPKFTGFFRRLVEEKHVSAATMQTALDAAKRAKQDTVAYLIE..EVHLSPSLLAET.....ISAEFAEP   | 68  |
| NTDB id 1018   | ACIAD RS01685 WP 004920473.1   | ...MSAFTTPPKFSGFIRRLVEEGYVNANQQMALEKAKKFQKDIPYPLID..NFSISPLTIAEI.....ISLEFGEP    | 68  |
| consensus      |                                | * * * * *                                                                        |     |

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|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| NTDB id 1410 SGL RS13950 WP 010873519.1     | SVDPEVAPIATQQMAELIGRFFPLDTCRRFKFLPLAQQEGDPSPVLVAMVPDPNLAQADELNRILRVKGF..ELRRLVVT                                                                 | 164 |
| NTDB id 1028 TT RS08215 WP 011173991.1      | YVDPEEDPPDP.....GAPLLLPEDLCRRYGVFPHRLLE...GNRLVLLMKDPRNILALDDVRLALKRKGLNYEVAPAVAT                                                                | 463 |
| NTDB id 1168 A1552VC RS11070 WP 000957200.1 | ETDLRSYDYAN.....LCQQLGLRELI TRYDALPIAKQ...GNL LLLAVSDPTLLQAEEEF RFATG.....LQVELA LAD                                                             | 127 |
| NTDB id 1293 VP RS12240 WP 005479695.1      | QP ELSQYEYAS.....LCQQLGLRELITRNHALP HRT...PSTLL LAVADPTNQQAEDDFRFATG.....LQVELVLAD                                                               | 127 |
| NTDB id 1401 DSB67 RS12665 WP 010643259.1   | CTSLNHQEYAS.....LCQTGLGRDLITRHNALPLNRT...SSTLLI LAVADPTNLQAEDDFRFATG.....LQVELVLAD                                                               | 127 |
| NTDB id 1110 NGFG RS09235 WP 003689817.1    | ILDLRHYPRHR.....VLMGVLT EEQMVEFHCVPVFRR...GDKVFFAVSDPTQMPQIQKTVSAG.....IAVELVIVE                                                                 | 126 |
| NTDB id 1251 GC085 RS07725 WP 011946523.1   | MLDINCIDVGT.....IPVNLVNEKL IKRHAMVPLFSR...GTNLYLATDDPSKQASLK EI QFHTG.....LNTHAI VIVE                                                            | 135 |
| NTDB id 384177 FZ919 RS17040 WP 001274990.1 | YFDLDVYDTSQ.....IPKDLVDQKL ILKHRI LPLIQR...GQILYVATS NPSNIEAIDAIRFN SK.....LLVEPVIVE                                                             | 135 |
| NTDB id 1058 ABD1 RS01615 WP 001274986.1    | YFDLDVYDTSQ.....IPKDLVDQKL ILKHRI LPLIQR...GQILYVATS NPSNIEAIDAIRFN SK.....LLVEPVIVE                                                             | 135 |
| NTDB id 1018 ACIAD RS01685 WP 004920473.1   | LLEDLGVEDPAL.....FLKD KIDEKLIKQYRIMPLVHR...GHVLYVATS NPTNIEAMD AIRFN SK.....LKVEPI VIVE                                                          | 135 |
| consensus                                   | * * * * *      *      * *      * * * * *      ! * * *      * *      * * * * *      ! * * *      * * * * * * * * *      *      * * *      * * * * |     |

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consensus



NTDB id 1410 SGL RS13950 WP 010873519.1  
NTDB id 1028 TT RS08215 WP 011173991.1  
NTDB id 1168 A1552VC RS11070 WP 000957200.1  
NTDB id 1293 VP RS12240 WP 005479695.1  
NTDB id 1401 DSB67 RS12665 WP 010643259.1  
NTDB id 1110 NGBF RS09235 WP 003689817.1  
NTDB id 1251 GC085 RS07725 WP 011946523.1  
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consensus



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| NTDB id 1410 SGL RS13950 WP 010873519.1     | KRKSALTCRTCAAELQQEWLDCPYCMTSRFS | 672 |
| NTDB id 1028 TT RS08215 WP 011173991.1      | .....                           | 889 |
| NTDB id 1168 A1552VC RS11070 WP 000957200.1 | .....                           | 562 |
| NTDB id 1293 VP RS12240 WP 005479695.1      | .....                           | 561 |
| NTDB id 1401 DSB67 RS12665 WP 010643259.1   | .....                           | 561 |
| NTDB id 1110 NGFG RS09235 WP 003689817.1    | .....                           | 558 |
| NTDB id 1251 GC085 RS07725 WP 011946523.1   | .....                           | 574 |
| NTDB id 384177 FZ919 RS17040 WP 001274990.1 | .....                           | 570 |
| NTDB id 1058 ABD1 RS01615 WP 001274986.1    | .....                           | 570 |
| NTDB id 1018 ACIAD RS01685 WP 004920473.1   | .....                           | 570 |
| consensus                                   |                                 |     |

-  non conserved
-  similar
-  ≥ 50% conserved