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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 1018 ACIAD RS01685 WP 004920473.1   | .....                                                                            | 0  |
| NTDB id 355299 E5D09 RS07910 WP 001274991.1 | .....                                                                            | 0  |
| NTDB id 1058 ABD1 RS01615 WP 001274986.1    | .....                                                                            | 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 1018 ACIAD RS01685 WP 004920473.1   | .....                                                                            | 0   |
| NTDB id 355299 E5D09 RS07910 WP 001274991.1 | .....                                                                            | 0   |
| NTDB id 1058 ABD1 RS01615 WP 001274986.1    | .....                                                                            | 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 1018 ACIAD RS01685 WP 004920473.1   | .....                                                                           | 0   |
| NTDB id 355299 E5D09 RS07910 WP 001274991.1 | .....                                                                           | 0   |
| NTDB id 1058 ABD1 RS01615 WP 001274986.1    | .....                                                                           | 0   |
| consensus                                   |                                                                                 |     |

|                                             |                                                                                    |     |
|---------------------------------------------|------------------------------------------------------------------------------------|-----|
| NTDB id 1410 SGL RS13950 WP 010873519.1     | .....MTSSSS                                                                        | 6   |
| NTDB id 1028 TT RS08215 WP 011173991.1      | LRSDALRYGAVPIGFQNGEVEVVLSDRPHKEAVAQLLNRPARFYALALPQAWHEELFRRAYPQKNRLGEVLVQEGKLSREAL | 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 1018 ACIAD RS01685 WP 004920473.1   | .....                                                                              | 0   |
| NTDB id 355299 E5D09 RS07910 WP 001274991.1 | .....                                                                              | 0   |
| NTDB id 1058 ABD1 RS01615 WP 001274986.1    | .....                                                                              | 0   |
| consensus                                   |                                                                                    |     |

|           |    |        |         |         |    |             |                                                                                   |     |
|-----------|----|--------|---------|---------|----|-------------|-----------------------------------------------------------------------------------|-----|
| NTDB      | id | 1410   | SGL     | RS13950 | WP | 010873519.1 | SKKSRVAVALRNYFSPFGNKLVAGCHVDAEQLRQALVQVKKTGRSLPEELKAVTGRELSPELLRQYKKNQLFELKVLYGVD | 86  |
| NTDB      | id | 1028   | TT      | RS08215 | WP | 011173991.1 | KEAIEVQKGGLPFAKPLGETLVELGLARPEDVEEALQKQRGGGRLEDTLVQ..SGKLRPEALACA.....VATQLGYGP   | 391 |
| NTDB      | id | 1168   | A1552VC | RS11070 | WP | 000957200.1 | .....MLTNLVALLRQAELISATQEQAVVTQVSASGTSVPPEALLE..LSIFHAQELTEQ.....LSHIFGLP         | 60  |
| NTDB      | id | 1293   | VP      | RS12240 | WP | 005479695.1 | .....MHSNLSTILRRQKGLTFSSQESLIEQVKASGISMPALLS..SGFFTSSELAEH.....LSSIFGLS           | 60  |
| NTDB      | id | 1401   | DSB67   | RS12665 | WP | 010643259.1 | .....MLTNLSTVLRRQAGILTFSQEEHLLEQVKASGISMEALLS..SGFFQSHELTEH.....LSSVFGLS          | 60  |
| NTDB      | id | 1110   | NGFG    | RS09235 | WP | 003689817.1 | .....MSVGLLRLLVQNQVVTVQEAHHY.NESQAGKEVLPMLFS..DGVISPKS LAAL.....IARVFSYS          | 59  |
| NTDB      | id | 1251   | GCO85   | RS07725 | WP | 011946523.1 | ...MALATEEYRLQGIGQLLVLEKLLDKTKAIELHKLA AA EKI SLLQYIVK..NKILSAEQIALT.....AAQNFQVP | 68  |
| NTDB      | id | 1018   | ACIAD   | RS01685 | WP | 004920473.1 | ...MSAFTTPPKFSGFIRRLVEEGYVNANMQQALEKAKKFQDIVPYLID..NFSISP LTI AEI.....ISLEFGEP    | 68  |
| NTDB      | id | 355299 | E5D09   | RS07910 | WP | 001274991.1 | ...MSALHTSPKFTGFRRRLVEEKHVSAATMQTALDAAKRAKQDTVAYLIE..EVHLSPSL LAET.....ISA EFA EP | 68  |
| NTDB      | id | 1058   | ABD1    | RS01615 | WP | 001274986.1 | ...MSALHTSPKFTGFRRRLVEEKHVSAATMQTALDAAKRAKQDTVAYLIE..EVHLSPSL LAET.....ISA EFA EP | 68  |
| consensus |    |        |         |         |    |             | * * * * *                                                                         |     |

|           |    |        |         |         |    |             |                                                                                     |     |       |           |       |   |   |                   |                 |       |         |
|-----------|----|--------|---------|---------|----|-------------|-------------------------------------------------------------------------------------|-----|-------|-----------|-------|---|---|-------------------|-----------------|-------|---------|
| NTDB      | id | 1410   | SGL     | RS13950 | WP | 010873519.1 | SVDPEVAPIATQQAELIGRFFPLDTCRRFKFLPLAQQEGDPSPVLVAMVPDNLAAQDELNRILRVKGF..ELRRLVVT      | 164 |       |           |       |   |   |                   |                 |       |         |
| NTDB      | id | 1028   | TT      | RS08215 | WP | 011173991.1 | YVDPEEDPPDP.....GAPLLLPEDLCRRYGVFPHRL...GNRLVLLMKDPRNIALLDDVRLALKRKGLNYEVAPAVAT     | 463 |       |           |       |   |   |                   |                 |       |         |
| NTDB      | id | 1168   | A1552VC | RS11070 | WP | 000957200.1 | ETDLSRDYAYAN.....LCQQLGLRELI TRYDALPIAKQ...GNLLLLAVSDPTLLQAEEEFRAFATG.....LQVELALAD | 127 |       |           |       |   |   |                   |                 |       |         |
| NTDB      | id | 1293   | VP      | RS12240 | WP | 005479695.1 | QPELSQYEYAS.....LCQQLGLRELITRNHALPLHRT...PSTLLILAVADPTNQQAEDDFRFATG.....LQVELVLAD   | 127 |       |           |       |   |   |                   |                 |       |         |
| NTDB      | id | 1401   | DSB67   | RS12665 | WP | 010643259.1 | CTSLNHQEYAS.....LCQTGLGRDLITRHNALPLNRT...SSTILLAVADPTNLQAEDDFRFATG.....LQVELVLAD    | 127 |       |           |       |   |   |                   |                 |       |         |
| NTDB      | id | 1110   | NGFG    | RS09235 | WP | 003689817.1 | ILDLRHYPRHR.....VLMGVLTTEEQMVEFHCVPVFRR...GDKVFFAVSDPTQMPQIQKTVSAG.....IAVELVIVE    | 126 |       |           |       |   |   |                   |                 |       |         |
| NTDB      | id | 1251   | GCO85   | RS07725 | WP | 011946523.1 | MLDINCIDVGT.....IPVNLVNEKLIKRHAMVPLFSR...GTNLYLATDDPSKQASLKEIQFHTG.....LNTHAIVE     | 135 |       |           |       |   |   |                   |                 |       |         |
| NTDB      | id | 1018   | ACIAD   | RS01685 | WP | 004920473.1 | LLDLGVEDPAL....FLKDKIDEKLIQKYRIMPLVHR...GHVLYVATSNPTNI EAMDAIRFN SK.....LKVEPIIVE   | 135 |       |           |       |   |   |                   |                 |       |         |
| NTDB      | id | 355299 | E5D09   | RS07910 | WP | 001274991.1 | YFDLDVYDTSQ.....TPKDLVDQKLILKHRILPLIQR...GGILYVATSNPSNIEAIDAIRFN SK.....LLVEPVIVE   | 135 |       |           |       |   |   |                   |                 |       |         |
| NTDB      | id | 1058   | ABD1    | RS01615 | WP | 001274986.1 | YFDLDVYDTSQ.....TPKDLVDQKLILKHRILPLIQR...GGILYVATSNPSNIEAIDAIRFN SK.....LLVEPVIVE   | 135 |       |           |       |   |   |                   |                 |       |         |
| consensus |    |        |         |         |    |             | * * * * *                                                                           | *   | * * * | * * * * * | * ! * | * | * | * * * * * ! * * * | * * * * * * * * | * * * | * * * * |

|                |                                |                                                                 |                                    |         |
|----------------|--------------------------------|-----------------------------------------------------------------|------------------------------------|---------|
| NTDB id 1410   | SGL RS13950 WP 010873519.1     | QDDFNQLLEQYVAIREEWAAQEKRDKERALDKLNDLTDIVGSIDMNLGEDKEDVDNALDSNDA | NQAPVILNVNKILLAKA                  | 244     |
| NTDB id 1028   | TT RS08215 WP 011173991.1      | EAAITTKLIERFYGKAELSIIAKEF.....                                  | AKKQAEEEVPSPLELDESAAQKFVKQVIREA    | 518     |
| NTDB id 1168   | A1552VC RS11070 WP 000957200.1 | HRAIQAAIRRLYGRSIQQGAANGKK..EI.SQDELANL.....                     | VKVSDDELSQSIEDLSQDSPSVSRFINQVLLDA  | 193     |
| NTDB id 1293   | VP RS12240 WP 005479695.1      | FRELSTAIRRLYGRSLSHEKSGLK..EI.NQEELASL.....                      | VDVGAEIEDNIENIEDLSQDSPVSRYINQILLDA | 193     |
| NTDB id 1401   | DSB67 RS12665 WP 010643259.1   | FRELTAAIRRLYGRSLGSEKSGLK..EI.NQDELAGL.....                      | VDIGEDEIEINIEDLSQDSPSVSRYINQILLDA  | 193     |
| NTDB id 1110   | NGFG RS09235 WP 003689817.1    | DDQLAGLLDWVGSRSTSL..LQEL.....GEG.....                           | QEEEESHPLYIDNEEAEDGPVPRFIHKTLSDA   | 183     |
| NTDB id 1251   | GC085 RS07725 WP 011946523.1   | TDKLSALIDNLLTAKESQGLSEYVEDSG.DLEGLEIS.....                      | AD.DEDQDIDTATSVTDAPIVKFKVNKILLDA   | 202     |
| NTDB id 1018   | ACIAD RS01685 WP 004920473.1   | HDKLERLLSEHFVEETHFNFDTE...EL.D...LDVE.....                      | VDPHTTDDDDEDKCLKDEAPIVKYINKLLIDA   | 197     |
| NTDB id 355299 | E5D09 RS07910 WP 001274991.1   | HHKLEKVLGGHFAEESSFDFNDE...EF.D...LDVN.....                      | LDGPTTQEDEEEAPQGDEAPIVKYINKLLIDA   | 197     |
| NTDB id 1058   | ABD1 RS01615 WP 001274986.1    | HHKLEKVLGGHFAEESSFDFNDE...EF.D...LDVN.....                      | LDGPTAQEDEEEAPQGDEAPIVKYINKLLIDA   | 197     |
| consensus      |                                | * ** * * * *                                                    | ** * * * *                         | ***** ! |

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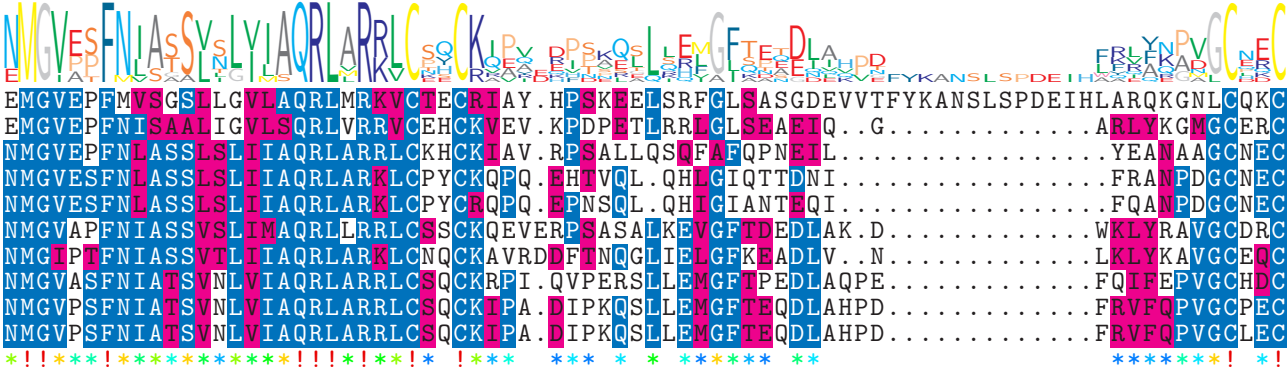
NTDB id 1410 SGL RS13950 WP 010873519.1  
NTDB id 1028 TT RS08215 WP 011173991.1  
NTDB id 1168 A1552VC RS11070 WP 000957200.1  
NTDB id 1293 VP RS12240 WP 005479695.1  
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NTDB id 1018 ACIAD RS01685 WP 004920473.1  
NTDB id 355299 E5D09 RS07910 WP 001274991.1  
NTDB id 1058 ABD1 RS01615 WP 001274986.1  
consensus



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NTDB id 1410 SGL RS13950 WP 010873519.1  
NTDB id 1028 TT RS08215 WP 011173991.1  
NTDB id 1168 A1552VC RS11070 WP 000957200.1  
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NTDB id 1018 ACIAD RS01685 WP 004920473.1  
NTDB id 355299 E5D09 RS07910 WP 001274991.1  
NTDB id 1058 ABD1 RS01615 WP 001274986.1  
consensus



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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  
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NTDB id 1058 ABD1 RS01615 WP 001274986.1  
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 1018 ACIAD RS01685 WP 004920473.1   | .....                           | 570 |
| NTDB id 355299 E5D09 RS07910 WP 001274991.1 | .....                           | 570 |
| NTDB id 1058 ABD1 RS01615 WP 001274986.1    | .....                           | 570 |
| consensus                                   |                                 |     |

-  non conserved
-  similar
-  ≥ 50% conserved