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NTDB id 600 KW2 RS01765 WP 011675413.1       MATKK...KTNFDDITKKYGAERDKALADALALIEKDFGKGSLMRLGEA.ANQKVSVVSSGSLALDIALGAGGYPKGRIV    76
NTDB id 269 KZH43 RS08665 WP 001085462.1     .MAKK...PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGRII    75
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NTDB id 625 LCA RS02525 WP 011374196.1       ...................MAKDERQAALDAALKKIEKNFGKGSIMRMGEK.VDTQVSTVSSGSLALDEALGVGGYPRGRIV    62
NTDB id 1245 Cj1673c YP 002345041.1          ...................MDDNKRKSLDAALKSLDKTFGKGTILRLGDK.EVEQIDSIGTGSVGLDLALGIGGVPKGRII    61
NTDB id 1211 C694 RS00795 WP 000963128.1     ................MAIDEDKQKAISLAIKQIDKVFGKGALVRLGDK.QVEKIDSISTGSLGLDLALGIGGVPKGRII    63
NTDB id 1214 NCTC11637 00359 SQJ03206.1      ................MAIDEDKQKAISLAIKQIDKVFGKGALVRLGDK.QVEKIDAISTGSLGLDLALGIGGVPKGRII    63
NTDB id 1334 RAOC RS04870 WP 004918236.1     ..........MAKTETTSPNDDKKKALAAVLEKLDKTYGKGTVMKLGDGTVDHNIEVIPSGSLGLDLALGVGGYPKGRIV    70
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NTDB id 1389 A4U84 RS07560 WP 021112712.1    .MAENKKSSKNNTVVKQVEPEQKKQALEAALAQIEKQFGKGSIMKLGQT.EQLDIESVSTGSLGLDLALGIGGLPMGRIV    78
NTDB id 1130 NGFG RS03960 WP 003688695.1     ...................MSDDKSKALAAALAQIEKSFGKGAIMKMDGSQQEENLEVISTGSLGLDLALGVGGLPRGRIV    62
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NTDB id 1123 OK783 RS03845 WP 003688695.1    ...................MSDDKSKALAAALAQIEKSFGKGAIMKMDGSQQEENLEVISTGSLGLDLALGVGGLPRGRIV    62
NTDB id 1427 RS RS02760 WP 011000510.1       .MEDG........KKAASMSAEKQKALAAALAQIEKQFGKGSIMKMGDA.EVEPVQVVSTGSLGLDVALGVGGLPRGRVV    70
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NTDB id 1142 GTF74 RS11550 WP 000344154.1    ...................MDENKQKALAAALGQIEKQFGKGSIMRLGDN.RAMDVETISTGSLSLDIALGAGGLPMGRIV    61
NTDB id 1022 ACIAD RS06390 WP 004925639.1    ...................MDDNKSKALQAALSQIEKQFGKNTVMRLGDN.TVQAVEAVSTGSLTLDIALGIGGLPKGRIV    61
NTDB id 1074 ABD1 RS10195 WP 000344167.1     ...................MDENKSKALQAALSQIEKQFGKNTVMRLGDN.TVQAVEAVSTGSLTLDIALGIGGLPKGRII    61
NTDB id 1205 PSJM300 05545 AFN77183.1        ...................MDENKKRALAAALGQIEKQFGKGAVMRMGDH.DRQAIPSISTGSLGLDIALGIGGLPKGRIV    61
consensus                                                        ** ***  ** **** *!!********      *  ***!!**!!*!!! !! !*!!**
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NTDB id 269 KZH43 RS08665 WP 001085462.1    EIYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLLSQPDSGEQGLEIAGKLIDSGAVDLVV  155
NTDB id 228 SPD RS09265 WP 001085462.1      EIYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLLSQPDSGEQGLEIAGKLIDSGAVDLVV  155
NTDB id 194 SPR RS08825 WP 001085462.1      EIYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLLSQPDSGEQGLEIAGKLIDSGAVDLVV  155
NTDB id 159 SP RS09750 WP 001085462.1       EIYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLLSQPDSGEQGLEIAGKLIDSGAVDLVV  155
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NTDB id 408 SMU RS09530 WP 002262392.1      EIYGPESSGKTTVALHAVAQAQKDGGIAAFIDAEHALDPAYAAALGVNIDELLLSQPDSGEQGLEIAGKLIDSGAVDLVV  155
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NTDB id 115 BSU 16940 NP 389576.2           EVYGPESSGKTTVALHAIAEVQQQGGQAAFIDAEHALDPVYAQKLGVNIEELLLSQPDTGEQALEIAEALVRSGAVDIVV  140
NTDB id 625 LCA RS02525 WP 011374196.1      EIYGPESSGKTTVALHAVAEVQKQGGTAAYIDAENAMDPKYATALGVNIDDLLLSQPDTGEQGLEIADALVSSGAVDILV  142
NTDB id 1245 Cj1673c YP 002345041.1         EIYGPESSGKTTLTLHIIAECQKAGGVCAFIDAEHALDVKYAKNLGVNTDDLYVSQPDFGEQALEIVETIARSGAVDLIV  141
NTDB id 1211 C694 RS00795 WP 000963128.1    EIYGPESSGKTTLSLHIIAECQKNGGVCAFIDAEHALDVHYAKRLGVDTENLLVSQPDTGEQALEILETITRSGGIDLVV  143
NTDB id 1214 NCTC11637 00359 SQJ03206.1     EIYGPESSGKTTLSLHIIAECQKNGGVCAFIDAEHALDVHYAKRLGVDTENLLVSQPDTGEQALEILETITRSGGIDLVV  143
NTDB id 1334 RAOC RS04870 WP 004918236.1    EIYGPESSGKTTLTLHAIAEAQKVGGTAAFIDAEHAFDMHYAEKLGINLEELIVSQPDNGEQALEIADSLIRSGGVDIVV  150
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NTDB id 1389 A4U84 RS07560 WP 021112712.1   EIYGPESSGKTTLTLSLIAQAQKGNKTCAFIDAEHALDPVYARNLGVNTDELLISQPDNGEQALEICDALVRSGAVDVII  158
NTDB id 1130 NGFG RS03960 WP 003688695.1    EIFGPESSGKTTLCLEAVAQCQKNGGVCAFVDAEHAFDPVYARKLGVKVEELYLSQPDTGEQALEICDTLVRSGGIDMVV  142
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NTDB id 1123 OK783 RS03845 WP 003688695.1   EIFGPESSGKTTLCLEAVAQCQKNGGVCAFVDAEHAFDPVYARKLGVKVEELYLSQPDTGEQALEICDTLVRSGGIDMVV  142
NTDB id 1427 RS RS02760 WP 011000510.1      EIYGPESSGKTTLTLQVVAEMQKLGGTCAFIDAEHALDVTYADKLGVKVPDLLISQPDTGEQALEIADALVRSGSVDLIV  150
NTDB id 1165 A1552VC RS01565 WP 000344154.1 EIFGPESSGKTTLTLELIAAAQREGKTCAFIDAEHALDPVYAKKLGVNIDELLVSQPDTGEQALEICDALARSGAVDVIV  141
NTDB id 1142 GTF74 RS11550 WP 000344154.1   EIFGPESSGKTTLTLELIAAAQREGKTCAFIDAEHALDPVYAKKLGVNIDELLVSQPDTGEQALEICDALARSGAVDVIV  141
NTDB id 1022 ACIAD RS06390 WP 004925639.1   EIYGPESSGKTTMTLQAIAQCQKAGGTCAFIDAEHALDPQYARKLGVDIDNLLVSQPDHGEQALEIADMLVRSGAIDLIV  141
NTDB id 1074 ABD1 RS10195 WP 000344167.1    EIYGPESSGKTTMTLQAIAQCQKSGGTCAFIDAEHALDPQYARKLGVDIDNLLVSQPDNGEQALEIADMLVRSGAIDLIV  141
NTDB id 1205 PSJM300 05545 AFN77183.1       EIYGPESSGKTTLTLSVIAAAQRMGSTCAFVDAEHALDPDYAGKLGVNVDDLLVSQPDTGEQALEITDMLVRSNAVDVII  141
consensus                                   !**!!!!*!!!!* ! ***!  !* **  !**!!!*!*!* !!  !!*****!***!!!*!!!*!*! * ***!***!***
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NTDB id 600 KW2 RS01765 WP 011675413.1      IDSVAALVPKAEIDGEIGDSSVGLQARMMSQAMRKLAGHINKTKTTAIFINQLREKVGVM.FGSPETTPGGRALKFYASV   235
NTDB id 269 KZH43 RS08665 WP 001085462.1    VDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVM.FGNPETTPGGRALKFYASV   234
NTDB id 228 SPD RS09265 WP 001085462.1      VDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVM.FGNPETTPGGRALKFYASV   234
NTDB id 194 SPR RS08825 WP 001085462.1      VDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVM.FGNPETTPGGRALKFYASV   234
NTDB id 159 SP RS09750 WP 001085462.1       VDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVM.FGNPETTPGGRALKFYASV   234
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NTDB id 499 SM12261 RS08315 WP 078228268.1  VDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVM.FGNPETTPGGRALKFYASV   234
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NTDB id 1022 ACIAD RS06390 WP 004925639.1   VDSVAALTPKAEIEGEMGDSHMGLQARLMSQALRKITGNAKRSNCMVIFINQIRMKIGVM.FGSPETTTGGNALKFYASV   220
NTDB id 1074 ABD1 RS10195 WP 000344167.1    VDSVAALTPKAEIEGEMGDSHMGLQARLMSQALRKITGNAKRSNCMVIFINQIRMKIGVM.FGSPETTTGGNALKFYASV   220
NTDB id 1205 PSJM300 05545 AFN77183.1       VDSVAALVPKAEIEGEMGDAHVGLQARLMSQALRKITGNIKNANCLVIFINQIRMKIGVM.FGSPETTTGGNALKFYASV   220
consensus                                   *!!!!!!*!*!!!*!**!!***!!*!!**!*!*!!*** * ** ** *!!!!*! !*!*! *! !!*! !! !!!!!***
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NTDB id 1214 NCTC11637 00359 SQJ03206.1     RIDIRRIAA....L.KQNEQHIGNRAKAKVVKNKVAPPFREAEFDIMFGEGISKEGEIIDYGVKLDIVDKSGAWLSYQDK   298
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consensus                                   !****!*             *  ** ****!**!!!*!*!!* *  ****!*!*** **** **   *** ! !*****!
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NTDB id 194 SPR RS08825 WP 001085462.1        KIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIEIE  387
NTDB id 159 SP RS09750 WP 001085462.1         KIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIEIE  387
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NTDB id 408 SMU RS09530 WP 002262392.1        KIGQGSENAKKFLADNPEIFDDIDHKVRVQYGLIEEDNTEEKQSSKEK.......ETDEK..ADKNLVLELDDTIELED.  383
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NTDB id 115 BSU 16940 NP 389576.2             RLGQGRENAKQFLKENKDIMLMIQEQIREHYGLDNNGVVQQQAEETQEEL.EFE.E.........................  348
NTDB id 625 LCA RS02525 WP 011374196.1        RIGQGRENAKNYLADHEDVEDEVRLKVRAAYGISDVPEEDLPTTEDE.QI.NILPDDST.....EE..............  355
NTDB id 1245 Cj1673c YP 002345041.1           KLGQGRENSKAFLKENPEIADEITKAIQNSMGIEGMISGSEDDEGEE.................................  343
NTDB id 1211 C694 RS00795 WP 000963128.1      KLGQGRENAKALLKEDKALADEITLKIKESIGSNEEIMPLPDEPLEEME...............................  347
NTDB id 1214 NCTC11637 00359 SQJ03206.1       KLGQGRENAKALLKEDKALADEITLKIKESIGSNEEIMPLPDEPLEEME...............................  347
NTDB id 1334 RA0C RS04870 WP 004918236.1      KLGQGRDTVKELIKDNPELAEELEAKIREKLQAK..............................................  343
NTDB id 36452 UWK RS01955 WP 015402668.1      RIGQGRENAKRFLQDHPEMFTDIDQKVRMGFGLLAPAGADAKKATDETE...............................  346
NTDB id 1389 A4U84 RS07560 WP 021112712.1     KIGQGKNNAVKWLKENPEIADKLEQEIRNTLASNPNSVLKATASDSNDES.DVEEFS......EEEL.............  372
NTDB id 1130 NGFG RS03960 WP 003688695.1      KIGQGKDNVRVWLKENPEISDEIDAKIRALNGVEMHITEGTQDETDGER.......P......EE...............  348
NTDB id 1124 NGFG RS03960 WP 003688695.1      KIGQGKDNVRVWLKENPEISDEIDAKIRALNGVEMHITEGTQDETDGER.......P......EE...............  348
NTDB id 1123 OK783 RS03845 WP 003688695.1     KIGQGKDNVRVWLKENPEISDEIDAKIRALNGVEMHITEGTQDETDGER.......P......EE...............  348
NTDB id 1427 RS RS02760 WP 011000510.1        RIGQGRDNCREFLRENAELAREIENKVREHLGVTPMGAVTLA.EEVEED...............................  352
NTDB id 1165 A1552VC RS01565 WP 000344154.1   KIGQGKANACKYLKENPEIAKTLDKKLREMLLNPENMQLIAETSSAADDV.EFGAVP......EEF..............  354
NTDB id 1142 GTF74 RS11550 WP 000344154.1     KIGQGKANACKYLKENPEIAKTLDKKLREMLLNPENMQLIAETSSAADDV.EFGAVP......EEF..............  354
NTDB id 1022 ACIAD RS06390 WP 004925639.1     KIGQGKNNVIRYLEENPQISTEIEAVIREQLLTKASDQTAA.HDETEEEP.DLL..E......S................  349
NTDB id 1074 ABD1 RS10195 WP 000344167.1      KIGQGKNNVIRYFEENNQIAEEIERNIREQLLTTGTNGAVQ.I.EDEEEP.DLL..L......ES...............  349
NTDB id 1205 PSJM300 05545 AFN77183.1         KIGQGKANAAKYLEENPEIGQEIEQQIRAKLLVTSANTKATPVAEDLADA.DI...........................  347
consensus                                     **!!!***** ** * *** ****  **    **               *
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                                                E
NTDB id 1313 DR RS12030 WP 010888966.1          .   363
NTDB id 600 KW2 RS01765 WP 011675413.1          .   387
NTDB id 269 KZH43 RS08665 WP 001085462.1        E   388
NTDB id 228 SPD RS09265 WP 001085462.1          E   388
NTDB id 194 SPR RS08825 WP 001085462.1          E   388
NTDB id 159 SP RS09750 WP 001085462.1           E   388
NTDB id 527 SMSK321 RS11065 WP 001085454.1      E   384
NTDB id 499 SM12261 RS08315 WP 078228268.1      E   384
NTDB id 408 SMU RS09530 WP 002262392.1          .   383
NTDB id 453 Spy49 1753c ACI62003.1              .   378
NTDB id 115 BSU 16940 NP 389576.2               .   348
NTDB id 625 LCA RS02525 WP 011374196.1          .   355
NTDB id 1245 Cj1673c YP 002345041.1             .   343
NTDB id 1211 C694 RS00795 WP 000963128.1        .   347
NTDB id 1214 NCTC11637 00359 SQJ03206.1         .   347
NTDB id 1334 RA0C RS04870 WP 004918236.1        .   343
NTDB id 36452 UWK RS01955 WP 015402668.1        .   346
NTDB id 1389 A4U84 RS07560 WP 021112712.1       .   372
NTDB id 1130 NGFG RS03960 WP 003688695.1        .   348
NTDB id 1124 NGFG RS03960 WP 003688695.1        .   348
NTDB id 1123 OK783 RS03845 WP 003688695.1       .   348
NTDB id 1427 RS RS02760 WP 011000510.1          .   352
NTDB id 1165 A1552VC RS01565 WP 000344154.1     .   354
NTDB id 1142 GTF74 RS11550 WP 000344154.1       .   354
NTDB id 1022 ACIAD RS06390 WP 004925639.1       .   349
NTDB id 1074 ABD1 RS10195 WP 000344167.1        .   349
NTDB id 1205 PSJM300 05545 AFN77183.1           .   347
consensus
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X non conserved
X similar
X $\geq$ 50% conserved