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NTDB id 600 KW2 RS01765 WP 011675413.1        MATK.....KKTNFDDITKKYGAERDKALADALALIEKDFGKGSLMRLGEA.ANQKVSVVSSGSLALDIALGAGGYPKGR    74
NTDB id 269 KZH43 RS08665 WP 001085462.1       .MAK.....KPKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR    73
NTDB id 228 SPD RS09265 WP 001085462.1         .MAK.....KPKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR    73
NTDB id 194 SPR RS08825 WP 001085462.1         .MAK.....KPKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR    73
NTDB id 159 SP RS09750 WP 001085462.1          .MAK.....KPKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR    73
NTDB id 499 SM12261 RS08315 WP 078228268.1     .MAK.....KPKKLDEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR    73
NTDB id 527 SMSK321 RS11065 WP 001085454.1     .MAK.....KPKKLDEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR    73
NTDB id 453 Spy49 1753c ACI62003.1             .MAK.....KLKKNEEITKKFGDERRKALDDALKNIEKDFGKGAVMRLGER.AEQKVQVMSSGSLALDIALGAGGYPKGR    73
NTDB id 408 SMU RS09530 WP 002262392.1         .MAK.....RIKKTEEITKKFGDERRKALDDALKNIEKDFGKGAVMRLGER.AEQKVQVMSSGSLALDIALGAGGYPKGR    73
NTDB id 115 BSU 16940 NP 389576.2              ..................MSDRQAALDMALKQIEKDFGKGSIMKLGEK.TDTRISTVPSGSLALDTALGIGGYPRGR    58
NTDB id 625 LCA RS02525 WP 011374196.1         ..................MAKDERQAALDAALKKIEKNFGKGSIMRMGEK.VDTQVSTVSSGSLALDEALGVGGYPRGR    60
NTDB id 1313 DR RS12030 WP 010888966.1         .......MSKDATKEISAPTDAKERSKAIETAMSQIEKAFGKGSIMKLGAE.SKLDVQVVSTGSLSLDLALGVGGIPRGR    72
NTDB id 1245 Cj1673c YP 002345041.1            ..................MDDNKRKSLDAALKSLDKTFGKGTILRLGDK.EVEQIDSIGTGSVGLDLALGIGGVPKGR    59
NTDB id 1211 C694 RS00795 WP 000963128.1       ...............MAIDEDKQKAISLAIKQIDKVFGKGALVRLGDK.QVEKIDSISTGSLGLDLALGIGGVPKGR    61
NTDB id 1214 NCTC11637 00359 SQJ03206.1        ...............MAIDEDKQKAISLAIKQIDKVFGKGALVRLGDK.QVEKIDAISTGSLGLDLALGIGGVPKGR    61
NTDB id 1334 RA0C RS04870 WP 004918236.1       .........MAK..TETTSPNDDKKKALAAVLEKLDKTYGKGTVMKLGDGTVDHNIEVIPSGSLGLDLALGGGYPKGR    68
NTDB id 237515 MYMAC RS07250 WP 095957542.1    ...............MSKLAEKLKAVAAAVASIEKQFGRGSVMTLGGEAREQKVAVIPTGSVGVDRALGVGGYPRGR    62
NTDB id 1389 A4U84 RS07560 WP 021112712.1      .MAENKKSSKNNT..VVKQVEPEQKKQALEAALAQIEKQFGKGSIMKLGQT.EQLDIESVSTGSLGLDLALGIGGLPMGR    76
NTDB id 1130 NGFG RS03960 WP 003688695.1       ..................MSDDKSKALAAALAQIEKSFGKGAIMKMDGSQQEENLEVISTGSLGLDLALGVGGLPRGR    60
NTDB id 1124 NGFG RS03960 WP 003688695.1       ..................MSDDKSKALAAALAQIEKSFGKGAIMKMDGSQQEENLEVISTGSLGLDLALGVGGLPRGR    60
NTDB id 1123 OK783 RS03845 WP 003688695.1      ..................MSDDKSKALAAALAQIEKSFGKGAIMKMDGSQQEENLEVISTGSLGLDLALGVGGLPRGR    60
NTDB id 1427 RS RS02760 WP 011000510.1         .MEDG.........KKAASMSAEKQKALAAALAQIEKQFGKGSIMKMGDA.EVEPVQVVSTGSLGLDVALGVGGLPRGR    68
NTDB id 1165 A1552VC RS01565 WP 000344154.1    ..................MDENKQKALAAALGQIEKQFGKGSIMRLGDN.RAMDVETISTGSLSLDIALGAGGLPMGR    59
NTDB id 1142 GTF74 RS11550 WP 000344154.1      ..................MDENKQKALAAALGQIEKQFGKGSIMRLGDN.RAMDVETISTGSLSLDIALGAGGLPMGR    59
NTDB id 1205 PSJM300 05545 AFN77183.1          ..................MDENKKRALAAALAQIEKQFGKGAVMRMGDH.DRQAIPSISTGSLGLDIALGIGGLPKGR    59
NTDB id 1022 ACIAD RS06390 WP 004925639.1      ..................MDDNKSKALQAALSQIEKQFGKNTVMRLGDN.TVQAVEAVSTGSLTLDIALGIGGLPKGR    59
NTDB id 1074 ABD1 RS10195 WP 000344167.1       ..................MDENKSKALQAALSQIEKQFGKNTVMRLGDN.TVQAVEAVSTGSLTLDIALGIGGLPKGR    59
consensus                                                        *  *  ***   **   **!  *!*********    *   *  ***!!***!*!!!  !!  !*!!
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NTDB id 600 KW2 RS01765 WP 011675413.1       IVEIYGPESSGKTTVALHAVAAVQKEGGIAAFIDAENALDPEYAKALGVNIDELLSQPDYGEQGLQIAEKLITSGAVDL   154
NTDB id 269 KZH43 RS08665 WP 001085462.1     IIEIYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLSQPDSGEQGLEIAGKLIDSGAVDL   153
NTDB id 228 SPD RS09265 WP 001085462.1       IIEIYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLSQPDSGEQGLEIAGKLIDSGAVDL   153
NTDB id 194 SPR RS08825 WP 001085462.1       IIEIYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLSQPDSGEQGLEIAGKLIDSGAVDL   153
NTDB id 159 SP RS09750 WP 001085462.1        IIEIYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLSQPDSGEQGLEIAGKLIDSGAVDL   153
NTDB id 499 SM12261 RS08315 WP 078228268.1   IIEIYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLSQPDSGEQGLEIAGKLIDSGAVDL   153
NTDB id 527 SMSK321 RS11065 WP 001085454.1   IIEIYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLSQPDSGEQGLEIAGKLIDSGAVDL   153
NTDB id 453 Spy49 1753c ACI62003.1           IIEIYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLAQPDSGEQGLEIAGKLIDSGAVDL   153
NTDB id 408 SMU RS09530 WP 002262392.1       IVEIYGPESSGKTTVALHAVAQAQKDGGIAAFIDAEHALDPAYAAALGVNIDELLSQPDSGEQGLEIAGKLIDSGAVDL   153
NTDB id 115 BSU 16940 NP 389576.2            IIEVYGPESSGKTTVALHAIAEVQQQGGQAAFIDAEHALDPVYAQKLGVNIEELLSQPDTGEQALEIAEALVSGAVDI   138
NTDB id 625 LCA RS02525 WP 011374196.1       IVEIYGPESSGKTTVALHAVEVQKQGGTAAYIDAENAMDPKYATALGVNIDDLLVSQPDNGEQALEIMDALVSSGAVDI   140
NTDB id 1313 DR RS12030 WP 010888966.1       ITEIYGPESGGKTTLALAIVAQAQKAGGTCAFIDAEHALDPVYARALGVNTDELLVSQPDNGEQALEIMELLVRSGAIDV   152
NTDB id 1245 Cj1673c YP 002345041.1          IIEIYGPESSGKTTLTLHIIAECQKAGGVCAFIDAEHALDVKYAKNLGVNTDDLYVSQPDFGEQALEIVETIARSGAVDL   139
NTDB id 1211 C694 RS00795 WP 000963128.1     IIEIYGPESSGKTTLSLHIIAECQKNGGVCAFIDAEHALDVHYAKRLGVDTENLLVSQPDTGEQALEILETITRSGGIDL   141
NTDB id 1214 NCTC11637 00359 SQJ03206.1      IIEIYGPESSGKTTLSLHIIAECQKNGGVCAFIDAEHALDVHYAKRLGVDTENLLVSQPDTGEQALEILETITRSGGIDL   141
NTDB id 1334 RA0C RS04870 WP 004918236.1     IVEIYGPESSGKTTLTLHAIAEAQKVGGTAAFIDAEHAFDMHYAEKLGINLEELIVSQPDNGEQALEIADSLIRSGGVDI   148
NTDB id 237515 MYMAC RS07250 WP 095957542.1  VVEVFGNESSGKTTLTLHAIAQVQAAGGVAAFIDAEHALDVSYARKLGVRVEELLSQPDTGEQALEITEHLVRSGAVDL   142
NTDB id 1389 A4U84 RS07560 WP 021112712.1    IVEIYGPESSGKTTLTLSLIAQAQKGNKTCAFIDAEHALDPVYARNLGVNTDELLISQPDNGEQALEICDALVRSGAVDV   156
NTDB id 1130 NGFG RS03960 WP 003688695.1     IVEIFGPESSGKTTLCLEAVAQCQKNGGVCAFVDAEHAFDPVYARKLGVKVEELYLSQPDTGEQALEICDTLVRSGGIDM   140
NTDB id 1124 NGFG RS03960 WP 003688695.1     IVEIFGPESSGKTTLCLEAVAQCQKNGGVCAFVDAEHAFDPVYARKLGVKVEELYLSQPDTGEQALEICDTLVRSGGIDM   140
NTDB id 1123 OK783 RS03845 WP 003688695.1    IVEIFGPESSGKTTLCLEAVAQCQKNGGVCAFVDAEHAFDPVYARKLGVKVEELYLSQPDTGEQALEICDTLVRSGGIDM   140
NTDB id 1427 RS RS02760 WP 011000510.1       VVEIYGPESSGKTTLTLQVVAEMQKLGGTCAFIDAEHALDVTYADKLGVKVPDLLISQPDTGEQALEIADALVRSGSVDL   148
NTDB id 1165 A1552VC RS01565 WP 000344154.1  IVEIFGPESSGKTTLTLELIAAAQREGKTCAFIDAEHALDPVYAKKLGVNIDELLSQPDTGEQALEICDALARSGAVDV   139
NTDB id 1142 GTF74 RS11550 WP 000344154.1    IVEIFGPESSGKTTLTLELIAAAQREGKTCAFIDAEHALDPVYAKKLGVNIDELLSQPDTGEQALEICDALARSGAVDV   139
NTDB id 1205 PSJM300 05545 AFN77183.1        IVEIYGPESSGKTTLTLSVIAAAQRMGSTCAFVDAEHALDPDYAGKLGVNVDDLLVSQPDTGEQALEITDMLVRSNAVDV   139
NTDB id 1022 ACIAD RS06390 WP 004925639.1    IVEIYGPESSGKTTMTLQAIAQCQKAGGTCAFIDAEHALDPQYARKLGVDIDNLLVSQPDHGEQALEIADMLVRSGAIDL   139
NTDB id 1074 ABD1 RS10195 WP 000344167.1     IIEIYGPESSGKTTMTLQAIAQCQKSGGTCAFIDAEHALDPQYARKLGVDIDNLLVSQPDNGEQALEIADMLVRSGAIDL   139
consensus                                    **!**!*!!*!!!!* ! **! !* ** !**!!!*!*!* !! !!*****!***!!!*!!!!*!*! * ***!***!*
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NTDB id 600 KW2 RS01765 WP 011675413.1	VVLDSVAALVPKAEIDGEIGDSSVGLQARMMSQAMRKLAGHINKTKTTAIFINQLREKVGVM.FGSPETTPGGRALKFYA	233
NTDB id 269 KZH43 RS08665 WP 001085462.1	VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVM.FGNPETTPGGRALKFYA	232
NTDB id 228 SPD RS09265 WP 001085462.1	VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVM.FGNPETTPGGRALKFYA	232
NTDB id 194 SPR RS08825 WP 001085462.1	VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVM.FGNPETTPGGRALKFYA	232
NTDB id 159 SP RS09750 WP 001085462.1	VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVM.FGNPETTPGGRALKFYA	232
NTDB id 499 SM12261 RS08315 WP 078228268.1	VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVM.FGNPETTPGGRALKFYA	232
NTDB id 527 SMSK321 RS11065 WP 001085454.1	VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVM.FGNPETTPGGRALKFYA	232
NTDB id 453 Spy49 1753c ACI62003.1	VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLSASINKTKTIAIFINQLREKVGVM.FGNPETTPGGRALKFYA	232
NTDB id 408 SMU RS09530 WP 002262392.1	VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLSASINKTKTIAIFINQLREKVGIM.FGNPETTPGGRALKFYS	232
NTDB id 115 BSU 16940 NP 389576.2	IVVDSVAALVPKAEIEGDMGDSHMSQALRKLSGAINKSKTIAIFINQIREKVGVM.FGNPETTPGGRALKFYS	217
NTDB id 625 LCA RS02525 WP 011374196.1	LVVDSVAALVPRAEIEGEMGDAHVGLQARLMSQALRKLSGTINKTKTIALFINQLREKVGVM.FGNPVTPGGRALKFYS	219
NTDB id 1313 DR RS12030 WP 010888966.1	VVVDSVAALTPRAEIEGDMGDSLPGLQARLMSQALRKLTAILSKTGTAAIFINQVREKIGVM.YGNPETTTGGRALKFYA	231
NTDB id 1245 Cj1673c YP 002345041.1	IVVDSVAALTPKAEIEGDMGDQHVGLQARLMSQALRKLTGIVHKMNTTVIFINQIRMKIGAMGYGTPETTTGGNALKFYA	219
NTDB id 1211 C694 RS00795 WP 000963128.1	VVVDSVAALTPKAEIDGDMGDQHVGLQARLMSHALRKITGVLHKMNTTLIFINQIRMKIGMMGYGSPETTTGGNALKFYA	221
NTDB id 1214 NCTC11637 00359 SQJ03206.1	VVVDSVAALTPKAEIDGDMGDQHVGLQARLMSHALRKITGVLHKMNTTLIFINQIRMKIGMMGYGSPETTTGGNALKFYA	221
NTDB id 1334 RA0C RS04870 WP 004918236.1	VVVDSVAALTPKAEIDGDMGDSKMGLHARLMSQALRKLTSSISKTKCTVIFINQLRDKIGVM.FGSPETTTGGNALKFYA	227
NTDB id 237515 MYMAC RS07250 WP 095957542.1	IVVDSVAALVPRAEIEGEMGDAHMCVQARLMSQALRKLTGAVSRSGTCIIFINQIRMKIGVM.FGNPETTPGGNALKFYA	221
NTDB id 1389 A4U84 RS07560 WP 021112712.1	IIVDSVAALTPKAEIEGDMGDSHMGLQARLMSQALRKLTANIKNTNCLVVFINQIRMKIGVM.FGNPETTTGGNALKFYA	235
NTDB id 1130 NGFG RS03960 WP 003688695.1	VVVDSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLTGHIKKTNTLVVFINQIRMKIGVM.FGSPETTTGGNALKFYS	219
NTDB id 1124 NGFG RS03960 WP 003688695.1	VVVDSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLTGHIKKTNTLVVFINQIRMKIGVM.FGSPETTTGGNALKFYS	219
NTDB id 1123 OK783 RS03845 WP 003688695.1	VVVDSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLTGHIKKTNTLVVFINQIRMKIGVM.FGSPETTTGGNALKFYS	219
NTDB id 1427 RS RS02760 WP 011000510.1	IVLDSVAALVPKAEIEGEMGDALPGLQARLMSQALRKLTGTIKRTNCLVIFINQIRMKIGVM.FGSPETTTGGNALKFYA	227
NTDB id 1165 A1552VC RS01565 WP 000344154.1	IVVDSVAALVPKAEIEGEMGDSHMGLQARMLSQAMRKLTGNLKQSNCMCIFINQIRMKIGVM.FGNPETTTGGNALKFYA	218
NTDB id 1142 GTF74 RS11550 WP 000344154.1	IVVDSVAALTPKAEIEGEMGDSHMGLQARMLSQAMRKLTGNLKQSNCMCIFINQIRMKIGVM.FGNPETTTGGNALKFYA	218
NTDB id 1205 PSJM300 05545 AFN77183.1	IIVDSVAALTPKAEIEGEMGDAHVGLQARLMSQALRKITGNIKNANCLVIFINQIRMKIGVM.FGSPETTTGGNALKFYA	218
NTDB id 1022 ACIAD RS06390 WP 004925639.1	IVVDSVAALTPKAEIEGEMGDSHMGLQARLMSQALRKITGNAKRSNCMVIFINQIRMKIGVM.FGSPETTTGGNALKFYA	218
NTDB id 1074 ABD1 RS10195 WP 000344167.1	IVVDSVAALTPKAEIEGEMGDSHMGLQARLMSQALRKITGNAKRSNCMVIFINQIRMKIGVM.FGSPETTTGGNALKFYA	218

consensus   ***!!!!!!!*!!!!!*!*!*!*!!*!*!!*!**!*!!*!*!!*!*!!*!*!! *** * ** ** *!!!!*! !*!*! *! !!*! !! !!!!!*

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NTDB id 600 KW2 RS01765 WP 011675413.1        SVRLDVRGSTKIEEGS.GDNKTQIGKITKIKVVKNKVAPPFKVALVDIMFGEGISSTGELLNIAVEEGIIKKSGAWFAYN  312
NTDB id 269 KZH43 RS08665 WP 001085462.1      SVRLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKEAVVEIMYGEGISKTGELLKIASDLDIIKKAGAWYSYK  311
NTDB id 228 SPD RS09265 WP 001085462.1        SVRLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKEAVVEIMYGEGISKTGELLKIASDLDIIKKAGAWYSYK  311
NTDB id 194 SPR RS08825 WP 001085462.1        SVRLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKEAVVEIMYGEGISKTGELLKIASDLDIIKKAGAWYSYK  311
NTDB id 159 SP RS09750 WP 001085462.1         SVRLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKEAVVEIMYGEGISKTGELLKIASDLDIIKKAGAWYSYK  311
NTDB id 499 SM12261 RS08315 WP 078228268.1    SVRLDVRGSTQIKGTG.DQKDTNVGKETKIKVVKNKVAPPFKEAFVEIMYGEGISKTGELLKIASDLDIIKKAGAWYSYK  311
NTDB id 527 SMSK321 RS11065 WP 001085454.1    SVRLDVRGSTQIKGTG.DQKDTNVGKETKIKVVKNKVAPPFKEAFVEIMYGEGISKTGELLKIASDLDIIKKAGAWYSYK  311
NTDB id 453 Spy49 1753c ACI62003.1            SVRLDVRGTTQIKGTG.DQKDSSIGKETKIKVVKNKVAPPFKVAEVEIMYGEGISRTGELVKIASDLDIIQKAGAWFSYN  311
NTDB id 408 SMU RS09530 WP 002262392.1        SVRLDVRGNTQIKGTG.EQKDSNIGKETKIKVVKNKVAPPFKEAFVEIIYGEGISRTGELVKIASDLGIIQKAGAWYSYN  311
NTDB id 115 BSU 16940 NP 389576.2             SVRLEVRRAEQLKQGN.....DVMGNKTKIKVVKNKVAPPFRTAEVDIMYGEGISKEGEIIDLGTELDIVQKSGSWYYE   292
NTDB id 625 LCA RS02525 WP 011374196.1        TVRLEVRRAETIKNGT.....DMIGNRARIKVVKNKVAPPFKVAEVDIMYGQGISRTGELVDMAVEKDIINKSGWYSYG   294
NTDB id 1313 DR RS12030 WP 010888966.1        SVRLDVRKIG....QPTKVGNDAVANTVKIKTVKNKVAAPFKEVELALVYGKGFDQLSDLVGLAADMDIIKKAGSFYSYG  307
NTDB id 1245 Cj1673c YP 002345041.1           SVRLDVRKVA....TLK.QNEEPIGNRVKVKVVKNKVAPPFRQAEFDVMFGEGLSREGEIIDYGVKLDIVDKSGAWFSYK  294
NTDB id 1211 C694 RS00795 WP 000963128.1      SVRIDIRRIA....SLK.QNEQHIGNRAKAKVVKNKVAPPFREAEFDIMFGEGISKEGEIIDYGVKLDIVDKSGAWLSYQ  296
NTDB id 1214 NCTC11637 00359 SQJ03206.1       SVRIDIRRIA....ALK.QNEQHIGNRAKAKVVKNKVAPPFREAEFDIMFGEGISKEGEIIDYGVKLDIVDKSGAWLSYQ  296
NTDB id 1334 RA0C RS04870 WP 004918236.1      SVRIDIRRSLSDTGKIKDKSGEVIGNRTKVKVVKNKVAPPFKSAEFDIMYGEGVSKVGEILDVATDLDIIQKSGSWFSYQ  307
NTDB id 237515 MYMAC RS07250 WP 095957542.1   SVRMEIRRTG....NIK.DGDAVVGSRARVKVVKNKVAPPFQEAEFDLMYGSGIHRVGEVLDLGVATGLIEKSGSHFSLR  296
NTDB id 1389 A4U84 RS07560 WP 021112712.1     SVRLDIRRCG....VVK.DGDEIIGSETKVKVVKNKVAPPFREVQFDIMYGEGISRMNELLILAEANGFIKKSGAWFSYD  310
NTDB id 1130 NGFG RS03960 WP 003688695.1      SVRLDIRRTG....SIK.KGEEVLGNETRVKVIKNKVAPPFRQAEFDILYGEGISWEGELIDIGVKNDIINKSGAWYSYN  294
NTDB id 1124 NGFG RS03960 WP 003688695.1      SVRLDIRRTG....SIK.KGEEVLGNETRVKVIKNKVAPPFRQAEFDILYGEGISWEGELIDIGVKNDIINKSGAWYSYN  294
NTDB id 1123 OK783 RS03845 WP 003688695.1     SVRLDIRRTG....SIK.KGEEVLGNETRVKVIKNKVAPPFRQAEFDILYGEGISWEGELIDIGVKNDIINKSGAWYSYN  294
NTDB id 1427 RS RS02760 WP 011000510.1        SVRLDIRRIG....SIK.KGDEVVGNETKVKVVKNKVAPPFREAIFDILYGAGWSREGELIDLGVEAKVVEKSGAWYSYN  302
NTDB id 1165 A1552VC RS01565 WP 000344154.1   SVRLDIRRTG....AIK.EGEEVVGNETRIKVVKNKIAAPFKEANTQIMYGQGFNREGELIDLGVKHKMVEKSGAWYSYQ  293
NTDB id 1142 GTF74 RS11550 WP 000344154.1     SVRLDIRRTG....AIK.EGEEVVGNETRIKVVKNKIAAPFKEANTQIMYGQGFNREGELIDLGVKHKMVEKSGAWYSYQ  293
NTDB id 1205 PSJM300 05545 AFN77183.1         SVRLDIRRTG....AVK.EGDEVVGSETRVKVVKNKVAPPFRQAEFQILYGKGIYRNGEIIDLGVQQGLVEKSGAWYAYK  293
NTDB id 1022 ACIAD RS06390 WP 004925639.1     SVRLDIRRIG....QVK.EGDEIIGSETKVKVVKNKMAPPFREAIFQILYGKGVNQLGELVDLAVQQNIVQKAGAWYSYQ  293
NTDB id 1074 ABD1 RS10195 WP 000344167.1      SVRLDIRRIG....QVK.EGDEIVGSETKVKVVKNKMAPPFKEAIFQILYGKGTNQLGELVDLAVQQDIVQKAGAWYSYQ  293
consensus                                     *!!**!*      *    * ** ****!**!!!*!*!!*** ****!*!*** **** **  *** ! !*****
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NTDB_id_600_KW2_RS01765_WP_011675413.1      DEKIGQGAEKAKNYLKEHQDVFDEIDHKVRAAHGLLDDSEVAE.....TEEETTASKTKAKAKKEEKAVETEEIELELED   387
NTDB_id_269_KZH43_RS08665_WP_001085462.1     DEKIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSE.....QDTENKKDE....PKKEEA..VNEEVPLDLGD   380
NTDB_id_228_SPD_RS09265_WP_001085462.1       DEKIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSE.....QDTENKKDE....PKKEEA..VNEEVPLDLGD   380
NTDB_id_194_SPR_RS08825_WP_001085462.1       DEKIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSE.....QDTENKKDE....PKKEEA..VNEEVPLDLGD   380
NTDB_id_159_SP_RS09750_WP_001085462.1        DEKIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSE.....QDTENKKDE....PKKEEA..VNEEVPLDLGD   380
NTDB_id_499_SM12261_RS08315_WP_078228268.1   DEKIGQGSENAKKYLADNPEIFDEIDHQVRVQFGLIDGEEIAE.....S....KKDE....AAQVDS..VNEEVTLDLGD   376
NTDB_id_527_SMSK321_RS11065_WP_001085454.1   DEKIGQGSENAKKYLADNPEVFAEIDHQVRVQFGLIDGEEAAE.....S....KKDE....VAQVDS..VNEEVTLDLGD   376
NTDB_id_453_Spy49_1753c_ACI62003.1           GEKIGQGSENAKRYLADHPQLFDEIDRKVRVKFGLLEESEEES....AMAVASE.......E......TDDLALDLDN   372
NTDB_id_408_SMU_RS09530_WP_002262392.1       GEKIGQGSENAKKFLADNPEIFDDIDHKVRVQYGLIEEDNTEE.....KQSSKEK.......ETDEK..ADKNLVLELDD   377
NTDB_id_115_BSU_16940_NP_389576.2            EERLGQGRENAKQFLKENKDIMLMIQEQIREHYGLDNNGVVQQ.....QAEETQEEL.EFE.E.......    348
NTDB_id_625_LCA_RS02525_WP_011374196.1       SERIGQGRENAKNYLADHEDVEDEVRLKVRAAYGISDVPEEDL.....PTTEDE.QI.NILPDDST.....EE.......    355
NTDB_id_1313_DR_RS12030_WP_010888966.1       DERIGQGEKTIAYIAERPEMEQEIRDRVMAAIRAGNAGEAPALAPAPAAPEAAEA......................    363
NTDB_id_1245_Cj1673c_YP_002345041.1          DKKLGQGRENSKAFLKENPEIADEITKAIQNSMGIEGMIS.....GSEDD..EGEE...............    343
NTDB_id_1211_C694_RS00795_WP_000963128.1     DKKLGQGRENAKALLKEDKALADEITLKIKESIGSNEEIM.....PLPDE..PLEEM.E............    347
NTDB_id_1214_NCTC11637_00359_SQJ03206.1      DKKLGQGRENAKALLKEDKALADEITLKIKESIGSNEEIM.....PLPDE..PLEEM.E............    347
NTDB_id_1334_RA0C_RS04870_WP_004918236.1     DTKLGQGRDTVKELIKDNPELABELEAKIREKLQAK.......................    343
NTDB_id_237515_MYMAC_RS07250_WP_095957542.1  GERIGQGRERAAEWLREHPEVLESLGKELTGASPPSSPAA.....VEAAA.............    341
NTDB_id_1389_A4U84_RS07560_WP_021112712.1    GTKIGQGKNNAVKWLKENPEIADKLEQEIRNTLASNPNSV.....LKATASDSNDES.DVEEF......SEEEL   372
NTDB_id_1130_NGFG_RS03960_WP_003688695.1     GAKIGQGKDNVRVWLKENPEISDEIDAKIRALNGVEMHIT.....EGT......QDE.TDGER.....PEE.    348
NTDB_id_1124_NGFG_RS03960_WP_003688695.1     GAKIGQGKDNVRVWLKENPEISDEIDAKIRALNGVEMHIT.....EGT......QDE.TDGER.....PEE.    348
NTDB_id_1123_OK783_RS03845_WP_003688695.1    GAKIGQGKDNVRVWLKENPEISDEIDAKIRALNGVEMHIT.....EGT......QDE.TDGER.....PEE.    348
NTDB_id_1427_RS_RS02760_WP_011000510.1       GERIGQGRDNCREFLRENAELAREIENKVREHLGVTPMGA.....V.TLAEEVEED................    352
NTDB_id_1165_A1552VC_RS01565_WP_000344154.1  GDKIGQGKANACKYLKENPEIAKTLDKKLREMLLNPENMQ.....LIAETSSAADDV.EFGAV.....PEEF   354
NTDB_id_1142_GTF74_RS11550_WP_000344154.1    GDKIGQGKANACKYLKENPEIAKTLDKKLREMLLNPENMQ.....LIAETSSAADDV.EFGAV.....PEEF   354
NTDB_id_1205_PSJM300_05545_AFN77183.1        GSKIGQGKANAAKYLEENPEIGQEIEQQIRAKLLVTSANT.....KATPVAEDLADA.DI..........    347
NTDB_id_1022_ACIAD_RS06390_WP_004925639.1    GNKIGQGKNNVIRYLEENPQISTEIEAVIREQLLTKASDQ.....TAA.HDETEEEP.DLL.......ES....   349
NTDB_id_1074_ABD1_RS10195_WP_000344167.1     GNKIGQGKNNVIRYFEENNQIABEIERNIREQLLTTGTNG.....AVQ.I.EDEEEP.DLL.......LES....   349
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NTDB id 228 SPD RS09265 WP 001085462.1        ELEIEIEE   388
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NTDB id 1022 ACIAD RS06390 WP 004925639.1     ........   349
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consensus

X̲ non conserved
X similar
X ≥50% conserved