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NTDB id 1030848 AB6W34 RS04610 WP 003589104.1  .MAKKTT.....AKNDNTKSDATDRDTELEKALQKIKKAFGEGAVMKMGDR.PELKVDVVSTGILSLDLALGVGGLPRGR  73
NTDB id 600 KW2 RS01765 WP 011675413.1         MATKKKT.....NFDDITKKYGAERDKALADALALIEKDFGKGSIMRLGEA.ANQKVSVVSSGSLALDIALGAGGYPKGR  74
NTDB id 269 KZH43 RS08665 WP 001085462.1       .MAKKPK.....KLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR  73
NTDB id 228 SPD RS09265 WP 001085462.1         .MAKKPK.....KLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR  73
NTDB id 194 SPR RS08825 WP 001085462.1         .MAKKPK.....KLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR  73
NTDB id 159 SP RS09750 WP 001085462.1          .MAKKPK.....KLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR  73
NTDB id 527 SMSK321 RS11065 WP 001085454.1     .MAKKPK.....KLDEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR  73
NTDB id 499 SM12261 RS08315 WP 078228268.1     .MAKKPK.....KLDEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR  73
NTDB id 453 Spy49 1753c ACI62003.1            .MAKKLK.....KNEEITKKFGDERRKALDDALKNIEKDFGKGAVMRLGER.AEQKVQVMSSGSLALDIALGAGGYPKGR  73
NTDB id 408 SMU RS09530 WP 002262392.1         .MAKRIK.....KTEEITKKFGDENRKALDDALKNIEKDFGKGAVMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR  73
NTDB id 625 LCA RS02525 WP 011374196.1         ................MAKDERQAALDAALKKIEKNFGKGSIMRMGEK.VDTQVSTVSSGSLALDEALGVGGYPRGR  60
NTDB id 115 BSU 16940 NP 389576.2             ...................MSDRQAALDMALKQIEKQFGKGSIMKLGEK.TDTRISTVPSGSLALDTALGIGGYPRGR  58
NTDB id 1313 DR RS12030 WP 010888966.1         .......MSKDATKEISAPTDAKERSKAIETAMSQIEKAFGKGSIMKLGAE.SKLDVQVVSTGSLSLDLALGVGGIPRGR  72
NTDB id 1245 Cj1673c YP 002345041.1            ...................MDDNKRKSLDAALKSLDKTFGKGTILRLGDK.EVEQIDSIGTGSVGLDLALGIGGVPKGR  59
NTDB id 1214 NCTC11637 00359 SQJ03206.1        ...................MAIDEDKQKAISLAIKQIDKVFGKGALVRLGDK.QVEKIDAISTGSLGLDLALGIGGVPKGR  61
NTDB id 1211 C694 RS00795 WP 000963128.1        ...................MAIDEDKQKAISLAIKQIDKVFGKGALVRLGDK.QVEKIDSISTGSLGLDLALGIGGVPKGR  61
NTDB id 1334 RAOC RS04870 WP 004918236.1        ...........MAKT..ETTSPNDDKKKALAAVLEKLDKTYGKGTVMKLGDGTVDHNIEVIPSGSLGLDLALGVGGYPKGR  68
NTDB id 1389 A4U84 RS07560 WP 021112712.1       .MAENKKSSKNNTV..VKQVEPEQKKQALEAALAQIEKQFGKGSIMKLGQT.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........K..KAASMSAEKQKALAAALAQIEKQFGKGSIMKMGDA.EVEPVQVSTGSLGLDVALGVGGLPRGR  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          ...................MDENKKRALAAALGQIEKQFGKGAVMRMGDH.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 1030848 AB6W34 RS04610 WP 003589104.1  IVEVYGPESTGKTTIALQTIAELQKSGGKAAYIDAENAMDPKYAAELGVNIDDLLLSQPNSGEQGLEIAEMLIESAAVDI  153
NTDB id 600 KW2 RS01765 WP 011675413.1          IVEIYGPESSGKTTVALHAVAAVQKEGGIAAFIDAENALDPEYAKALGVNIDELLLSQPDYGEQGLQIAEKLITSGAVDL  154
NTDB id 269 KZH43 RS08665 WP 001085462.1        IIEIYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLLSQPDSGEQGLEIAGKLIDSGAVDL  153
NTDB id 228 SPD RS09265 WP 001085462.1          IIEIYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLLSQPDSGEQGLEIAGKLIDSGAVDL  153
NTDB id 194 SPR RS08825 WP 001085462.1          IIEIYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLLSQPDSGEQGLEIAGKLIDSGAVDL  153
NTDB id 159 SP RS09750 WP 001085462.1           IIEIYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLLSQPDSGEQGLEIAGKLIDSGAVDL  153
NTDB id 527 SMSK321 RS11065 WP 001085454.1      IIEIYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLLSQPDSGEQGLEIAGKLIDSGAVDL  153
NTDB id 499 SM12261 RS08315 WP 078228268.1      IIEIYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLLSQPDSGEQGLEIAGKLIDSGAVDL  153
NTDB id 453 Spy49 1753c ACI62003.1              IIEIYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLLAQPDSGEQGLEIAGKLIDSGAVDL  153
NTDB id 408 SMU RS09530 WP 002262392.1          IVEIYGPESSGKTTVALHAVAQAQKDGGIAAFIDAEHALDPAYAAALGVNIDELLLSQPDTGEQGLEIADALVSSGAVDI  153
NTDB id 625 LCA RS02525 WP 011374196.1          IVEIYGPESSGKTTVALHAVAEVQKQGGTAAYIDAENAMDPKYATALGVNIDDLLLSQPDTGEQGLEIADALVSSGAVDI  140
NTDB id 115 BSU 16940 NP 389576.2              IIEVYGPESSGKTTVALHAIAEVQQQGGQAAFIDAEHALDPVYAQKLGVNIEELLLSQPDTGEQALEIAEALVRSGAVDI  138
NTDB id 1313 DR RS12030 WP 010888966.1          ITEIYGPESGGKTTLALAIVAQAQKAGGTCAFIDAEHALDPVYARALGVNTDELLVSQPDNGEQALEIMELLVRSGAIDV  152
NTDB id 1245 Cj1673c YP 002345041.1             IIEIYGPESSGKTTLTLHIIAECQKAGGVCAFIDAEHALDVKYAKNLGVNTDDLYVSQPDFGEQALEIVETIARSGAVDL  139
NTDB id 1214 NCTC11637 00359 SQJ03206.1         IIEIYGPESSGKTTLSLHIIAECQKNGGVCAFIDAEHALDVHYAKRLGVDTENLLVSQPDTGEQALEILETITRSGGIDL  141
NTDB id 1211 C694 RS00795 WP 000963128.1        IIEIYGPESSGKTTLSLHIIAECQKNGGVCAFIDAEHALDVHYAKRLGVDTENLLVSQPDTGEQALEILETITRSGGIDL  141
NTDB id 1334 RAOC RS04870 WP 004918236.1        IVEIYGPESSGKTTLTLHAIAEAQKVGGTAAFIDAEHAFDMHYAEKLGINLEELIVSQPDNGEQALEIADSLIRSGGVDI  148
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     IVEIFGPESSGKTTLTLELIAAAQREGKTCAFIDAEHALDPVYAKKLGVNIDELLVSQPDTGEQALEICDALARSGAVDV  139
NTDB id 1142 GTF74 RS11550 WP 000344154.1        IVEIFGPESSGKTTLTLELIAAAQREGKTCAFIDAEHALDPVYAKKLGVNIDELLVSQPDTGEQALEICDALARSGAVDV  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 1030848 AB6W34 RS04610 WP 003589104.1	VVIDSVAALVPKAEIEGAIGDSHVGLQARLMSQALRKMAGSINNTNTLVIFINQLREKVGVM.FGNPEVTPGGRALKFYA	232
NTDB id 600 KW2 RS01765 WP 011675413.1	VVIDSVAALVPKAEIDGEIGDSSVGLQARMMSQAMRKLAGHINKTKTTAIFINQLREKVGVM.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 527 SMSK321 RS11065 WP 001085454.1	VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVM.FGNPETTPGGRALKFYA	232
NTDB id 499 SM12261 RS08315 WP 078228268.1	VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVM.FGNPETTPGGRALKFYA	232
NTDB id 453 Spy49 1753c ACI62003.1	VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLSASINKTKTIAIFINQLREKVGVM.FGNPETTPGGRALKFYA	232
NTDB id 408 SMU RS09530 WP 002262392.1	VVVDSVAALVPRAEIEGDIGDSHVGLQARMMSQAMRKLSASINKTKTIAIFINQLREKVGIM.FGNPETTPGGRALKFYS	232
NTDB id 625 LCA RS02525 WP 011374196.1	LVVDSVAALVPRAEIEGEMGDAHVGLQARLMSQALRKLSGTINKTKTIALFINQIREKVGVM.FGNPEVTPGGRALKFYS	219
NTDB id 115 BSU 16940 NP 389576.2	VVVDSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLSGAINKSKTIAIFINQIREKVGVM.FGNPETTPGGRALKFYS	217
NTDB id 1313 DR RS12030 WP 010888966.1	VVVDSVAALTPRAEIEGDMGDSLPGLQARLMSQALRKLTAILSKTGTAAIFINQVREKIGVM.YGNPETTTGGRALKFYA	231
NTDB id 1245 Cj1673c YP 002345041.1	IVVDSVAALTPKAEIEGDMGDQHVGLQARLMSQALRKLTGIVHKMNTTVIFINQIRMKIGAMGYGTPETTTGGNALKFYA	219
NTDB id 1214 NCTC11637 00359 SQJ03206.1	VVVDSVAALTPKAEIDGDMGDQHVGLQARLMSHALRKITGVLHKMNTTLIFINQIRMKIGMMGYGSPETTTGGNALKFYA	221
NTDB id 1211 C694 RS00795 WP 000963128.1	VVVDSVAALTPKAEIDGDMGDQHVGLQARLMSHALRKITGVLHKMNTTLIFINQIRMKIGMMGYGSPETTTGGNALKFYA	221
NTDB id 1334 RAOC RS04870 WP 004918236.1	VVVDSVAALTPKAEIDGDMGDSKMGLHARLMSQALRKLTSSISKTKCTVIFINQLRDKIGVM.FGSPETTTGGNALKFYA	227
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	IVVDSVAALTPKAEIEGEMGDSHMGLQARLMSQAMRKLTGNLKQSNCMCIFINQIRMKIGVM.FGNPETTTGGNALKFYA	218
NTDB id 1142 GTF74 RS11550 WP 000344154.1	IVVDSVAALTPKAEIEGEMGDSHMGLQARLMSQAMRKLTGNLKQSNCMCIFINQIRMKIGVM.FGNPETTTGGNALKFYA	218
NTDB id 1205 PSJM300 05545 AFN77183.1	IIVDSVAALTPKAEIEGEMGDAHMGLQARLMSQALRKITGNIKNANCLVIFINQIRMKIGVM.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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Label	Sequence	Pos
NTDB id 1030848 AB6W34 RS04610 WP 003589104.1	SVRIEVKRGQQVKDGK.....DVVGFASKLKVTKNKVAPPFKSVETTMSFGHGIEHNTDMINLATDKDNDIDVITKSGSW	307
NTDB id 600 KW2 RS01765 WP 011675413.1	SVRLDVRGSTKIEEGS.GDNKTQIGKITKIKVVKNKVAPPFKVALVDIMFGEGISSTGELLNIAV.....EEGIIKKSGAW	308
NTDB id 269 KZH43 RS08665 WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKEAVVEIMYGEGISKTGELLKIAS....DLDIIKKAGAW	307
NTDB id 228 SPD RS09265 WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKEAVVEIMYGEGISKTGELLKIAS....DLDIIKKAGAW	307
NTDB id 194 SPR RS08825 WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKEAVVEIMYGEGISKTGELLKIAS....DLDIIKKAGAW	307
NTDB id 159 SP RS09750 WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKEAVVEIMYGEGISKTGELLKIAS....DLDIIKKAGAW	307
NTDB id 527 SMSK321 RS11065 WP 001085454.1	SVRLDVRGSTQIKGTG.DQKDTNVGKETKIKVVKNKVAPPFKEAFVEIMYGEGISKTGELLKIAS....DLDIIKKAGAW	307
NTDB id 499 SM12261 RS08315 WP 078228268.1	SVRLDVRGSTQIKGTG.DQKDTNVGKETKIKVVKNKVAPPFKEAFVEIMYGEGISKTGELLKIAS....DLDIIKKAGAW	307
NTDB id 453 Spy49 1753c ACI62003.1	SVRLDVRGTTQIKGTG.DQKDSSIGKETKIKVVKNKVAPPFKVAEVEIMYGEGISRTGELVKIAS....DLDIIQKAGAW	307
NTDB id 408 SMU RS09530 WP 002262392.1	SVRLDVRGNTQIKGTG.EQKDSNIGKETKIKVVKNKVAPPFKEAFVEIIYGEGISKTGELVKIAS....DLGIIQKAGAW	307
NTDB id 625 LCA RS02525 WP 011374196.1	TVRLEVRRAETIKNGT.....DMIGNRARIKVVKNKVAEVDIMYGQGISRTGELVDMAV.....EKDIINKSGSW	290
NTDB id 115 BSU 16940 NP 389576.2	SVRLEVRRAEQLKQGN.....DVMGNKTKIKVVKNKVAPPFRTAEVDIMYGEGISKEGEIIDLGT....ELDIVQKSGSW	288
NTDB id 1313 DR RS12030 WP 010888966.1	SVRLDVRKIGQ....PTKVGNDAVANTVKIKTVKNKVAAPFKEVELALVYGKGFDQLSDLVGLAA....DMDIIKKAGSF	303
NTDB id 1245 Cj1673c YP 002345041.1	SVRLDVRKVAT....L.KQNEEPIGNRVKVKVVKNKVAPPFRQAEFDVMFGEGLSREGELIDYGV....KLDIVDKSGAW	290
NTDB id 1214 NCTC11637 00359 SQJ03206.1	SVRHDIRRIAA....L.KQNEQHIGNRAKAKVVKNKVAPPFREAEFDIMFGEGISKEGEIIDYGV....KLDIVDKSGAW	292
NTDB id 1211 C694 RS00795 WP 000963128.1	SVRHDIRRIAS....L.KQNEQHIGNRAKAKVVKNKVAPPFREAEFDIMFGEGISKEGEIIDYGV....KLDIVDKSGAW	292
NTDB id 1334 RAOC RS04870 WP 004918236.1	SVRHDIRRSLSDTGKIKDKSGEVIGNRTKVKVVKNKVAPPFKSAEFDIMYGEGVSKVGEILDVAT....DLDIIQKSGSW	303
NTDB id 1389 A4U84 RS07560 WP 021112712.1	SVRLDIRRCGV....V.KDGDEIIGSETKVKVVKNKVAPPFREVQFDIMYGEGISRMNELLILAE....ANGFIKKSGAW	306
NTDB id 1130 NGFG RS03960 WP 003688695.1	SVRLDIRRTGS....I.KKGEEVLGNETRVKVIKNKVAPPFRQAEFDILYGEGISWEGELIDIGV....KNDIINKSGAW	290
NTDB id 1124 NGFG RS03960 WP 003688695.1	SVRLDIRRTGS....I.KKGEEVLGNETRVKVIKNKVAPPFRQAEFDILYGEGISWEGELIDIGV....KNDIINKSGAW	290
NTDB id 1123 OK783 RS03845 WP 003688695.1	SVRLDIRRTGS....I.KKGEEVLGNETRVKVIKNKVAPPFRQAEFDILYGEGISWEGELIDIGV....KNDIINKSGAW	290
NTDB id 1427 RS RS02760 WP 011000510.1	SVRLDIRRIGS....I.KKGDEVVGNETKVKVVKNKVAPPFREAIFDILYGAGVSREGEIIDLGV....EAKVVEKSGAW	298
NTDB id 1165 A1552VC RS01565 WP 000344154.1	SVRLDIRRTGA....I.KEGEEVVGNETRIKVVKNKIAAPFKEANTQIMYGQGFNREGELIDLGV....KHKMVEKSGAW	289
NTDB id 1142 GTF74 RS11550 WP 000344154.1	SVRLDIRRTGA....I.KEGEEVVGNETRIKVVKNKIAAPFKEANTQIMYGQGFNREGELIDLGV....KHKMVEKSGAW	289
NTDB id 1205 PSJM300 05545 AFN77183.1	SVRLDIRRTGA....V.KEGDEVVGSETRVKVVKNKVAPPFRQAEFQILYGKGIYRNGEIIDLGV....QQGLVEKSGAW	289
NTDB id 1022 ACIAD RS06390 WP 004925639.1	SVRLDIRRIGQ....V.KEGDEIIGSETKVKVVKNKMAPPFREAIFQILYGKGVNQLGELVDLAV....QQNIVQKAGAW	289
NTDB id 1074 ABD1 RS10195 WP 000344167.1	SVRLDIRRIGQ....V.KEGDEIVGSETKVKVVKNKMAPPFKEAIFQILYGKGTNQLGELVDLAV....QQDIVQKAGAW	289

consensus

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                                    YSYngeKIGQGkENAkkYLKENPEIdEIdkIRekgGLidEEvsEttEkkDEeeDeEeeE     vnEEEveLDLsD
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Sequence	Alignment	Pos
NTDB id 1030848 AB6W34 RS04610 WP 003589104.1	YNYGKERLGQGLVNASHYLDEHPEISKEIEEKIREQVAPKKPEEADEKQDDKKDDQASADKKTEKTTTTDTEKKAGKKDD	387
NTDB id 600 KW2 RS01765 WP 011675413.1	FAYNDEKIGQGAEKAKNYLKEHQDVFDEIDHKVRAAHGLLDDSEVAETEEETTASKTKAKAKKEEKAVET.EEIELELED	387
NTDB id 269 KZH43 RS08665 WP 001085462.1	YSYKDEKIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VN.EEVPLDLGD	380
NTDB id 228 SPD RS09265 WP 001085462.1	YSYKDEKIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VN.EEVPLDLGD	380
NTDB id 194 SPR RS08825 WP 001085462.1	YSYKDEKIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VN.EEVPLDLGD	380
NTDB id 159 SP RS09750 WP 001085462.1	YSYKDEKIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VN.EEVPLDLGD	380
NTDB id 527 SMSK321 RS11065 WP 001085454.1	YSYKDEKIGQGSENAKKYLADNPEVFAEIDHQVRVQFGLIDGEEAAE....SKKDE....VAQVDS..VN.EEVTLDLGD	376
NTDB id 499 SM12261 RS08315 WP 078228268.1	YSYKDEKIGQGSENAKKYLADNPEIFDEIDHQVRVQFGLIDGEEIAE....SKKDE....AAQVDS..VN.EEVTLDLGD	376
NTDB id 453 Spy49 1753c ACI62003.1	FSYNGEKIGQGSENAKRYLADHPQLFDEIDRKVRVKFGLLEESEEESAMAVASE.......E........T.DDLALDLDN	372
NTDB id 408 SMU RS09530 WP 002262392.1	YSYNGEKIGQGSENAKKFLADNPEIFDDIDHKVRVQYGLIEEDNTEEKQSSKEK.......ETDEK..AD.KNLVLELDD	377
NTDB id 625 LCA RS02525 WP 011374196.1	YSYGSERIGQGRENAKNYLADHEDVEDEVRLKVRAAYGISDVPEEDLPTTEDE.QI.NILPDDST......EE.......	355
NTDB id 115 BSU 16940 NP 389576.2	YSYEEERLGQGRENAKQFLKENKDIMLMIQEQIREHYGLDNNGVVQQQAEETQEEL.EFE.E.................	348
NTDB id 1313 DR RS12030 WP 010888966.1	YSYGDERIGQGKEKTIAYIAERPEMEQEIRDRVMAAIRAGNAGEAPALAPAPAAPEAAEA...............	363
NTDB id 1245 Cj1673c YP 002345041.1	FSYKDKKLGQGRENSKAFLKENPEIADEITKAIQNSMGIEGMI.....SGSEDDE..GEE.............	343
NTDB id 1214 NCTC11637 00359 SQJ03206.1	LSYQDKKLGQGRENAKALLKEDKALADEITLKIKESIGSNEEI.....MPLPDEP..LEEME.........	347
NTDB id 1211 C694 RS00795 WP 000963128.1	LSYQDKKLGQGRENAKALLKEDKALADEITLKIKESIGSNEEI.....MPLPDEP..LEEME.........	347
NTDB id 1334 RAOC RS04870 WP 004918236.1	FSYQDTKLGQGRDTVKELIKDNPELAEELEAKIREKLQAK...................	343
NTDB id 1389 A4U84 RS07560 WP 021112712.1	FSYDGTKIGQGKNNAVKWLKENPEIADKLEQEIRNTLASNPNS.....VLKATASDSNDESDVEEF...SEEEL	372
NTDB id 1130 NGFG RS03960 WP 003688695.1	YSYNGAKIGQGKDNVRVWLKENPEISDEIDAKIRALNGVEMHI.....TEGT......QDETDGER...PEE	348
NTDB id 1124 NGFG RS03960 WP 003688695.1	YSYNGAKIGQGKDNVRVWLKENPEISDEIDAKIRALNGVEMHI.....TEGT......QDETDGER...PEE	348
NTDB id 1123 OK783 RS03845 WP 003688695.1	YSYNGAKIGQGKDNVRVWLKENPEISDEIDAKIRALNGVEMHI.....TEGT......QDETDGER...PEE	348
NTDB id 1427 RS RS02760 WP 011000510.1	YSYNGERIGQGRDNCREFLRENAELAREIENKVREHLGVTPMG.....AV.TLAEEVEED..................	352
NTDB id 1165 A1552VC RS01565 WP 000344154.1	YSYNGDKIGQGKANACKYLKENPEIAKTLDKKLREMLLNPENM.....QLIAETSSAADDVEFGAV...PEEF	354
NTDB id 1142 GTF74 RS11550 WP 000344154.1	YSYNGDKIGQGKANACKYLKENPEIAKTLDKKLREMLLNPENM.....QLIAETSSAADDVEFGAV...PEEF	354
NTDB id 1205 PSJM300 05545 AFN77183.1	YAYKGSKIGQGKANAAKYLEENPEIGQEIEQQIRAKLLVTSAN.....TKATPVAEDLADADI................	347
NTDB id 1022 ACIAD RS06390 WP 004925639.1	YSYQGNKIGQGKNNVIRYLEENPQISTEIBAVIREQLLTKASD.....QTAA.HDETEEEPDLL.....ES........	349
NTDB id 1074 ABD1 RS10195 WP 000344167.1	YSYQGNKIGQGKNNVIRYFEENNQIAEEIERNIREQLLTTGTN.....GAVQ.I.EDEEEPDLL.....LES.......	349

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consensus         **!    **!!!*******  **  * *** ****   **    **
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                                                        ELEIELEE
NTDB id 1030848 AB6W34 RS04610 WP 003589104.1    PASFGVDRLV    397
NTDB id 600 KW2 RS01765 WP 011675413.1           ..........    387
NTDB id 269 KZH43 RS08665 WP 001085462.1         ELEIEIEE..    388
NTDB id 228 SPD RS09265 WP 001085462.1           ELEIEIEE..    388
NTDB id 194 SPR RS08825 WP 001085462.1           ELEIEIEE..    388
NTDB id 159 SP RS09750 WP 001085462.1            ELEIEIEE..    388
NTDB id 527 SMSK321 RS11065 WP 001085454.1       ELEIEIEE..    384
NTDB id 499 SM12261 RS08315 WP 078228268.1       ELEIEIEE..    384
NTDB id 453 Spy49 1753c ACI62003.1               GIEIED....    378
NTDB id 408 SMU RS09530 WP 002262392.1           TIELED....    383
NTDB id 625 LCA RS02525 WP 011374196.1           ..........    355
NTDB id 115 BSU 16940 NP 389576.2                ..........    348
NTDB id 1313 DR RS12030 WP 010888966.1           ..........    363
NTDB id 1245 Cj1673c YP 002345041.1              ..........    343
NTDB id 1214 NCTC11637 00359 SQJ03206.1          ..........    347
NTDB id 1211 C694 RS00795 WP 000963128.1         ..........    347
NTDB id 1334 RAOC RS04870 WP 004918236.1         ..........    343
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 1205 PSJM300 05545 AFN77183.1            ..........    347
NTDB id 1022 ACIAD RS06390 WP 004925639.1        ..........    349
NTDB id 1074 ABD1 RS10195 WP 000344167.1         ..........    349
consensus
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X non conserved
X similar
X ≥ 50% conserved