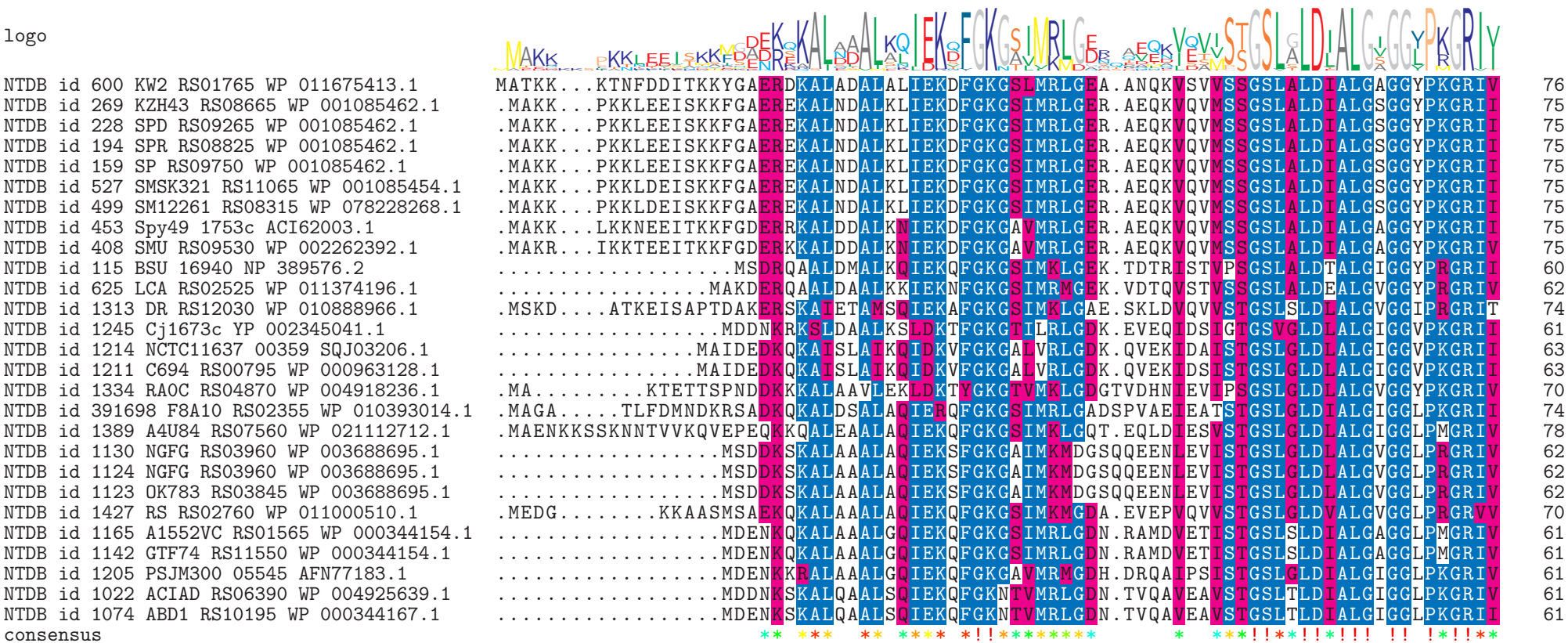
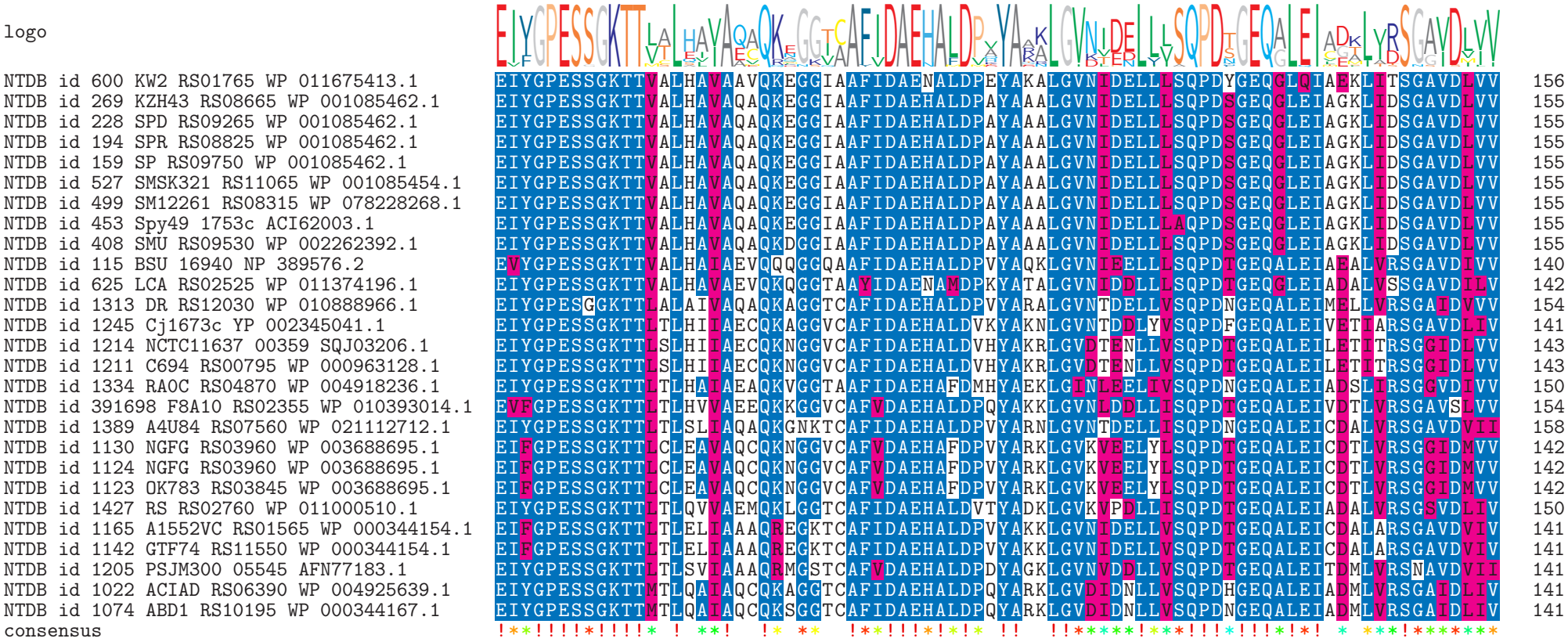
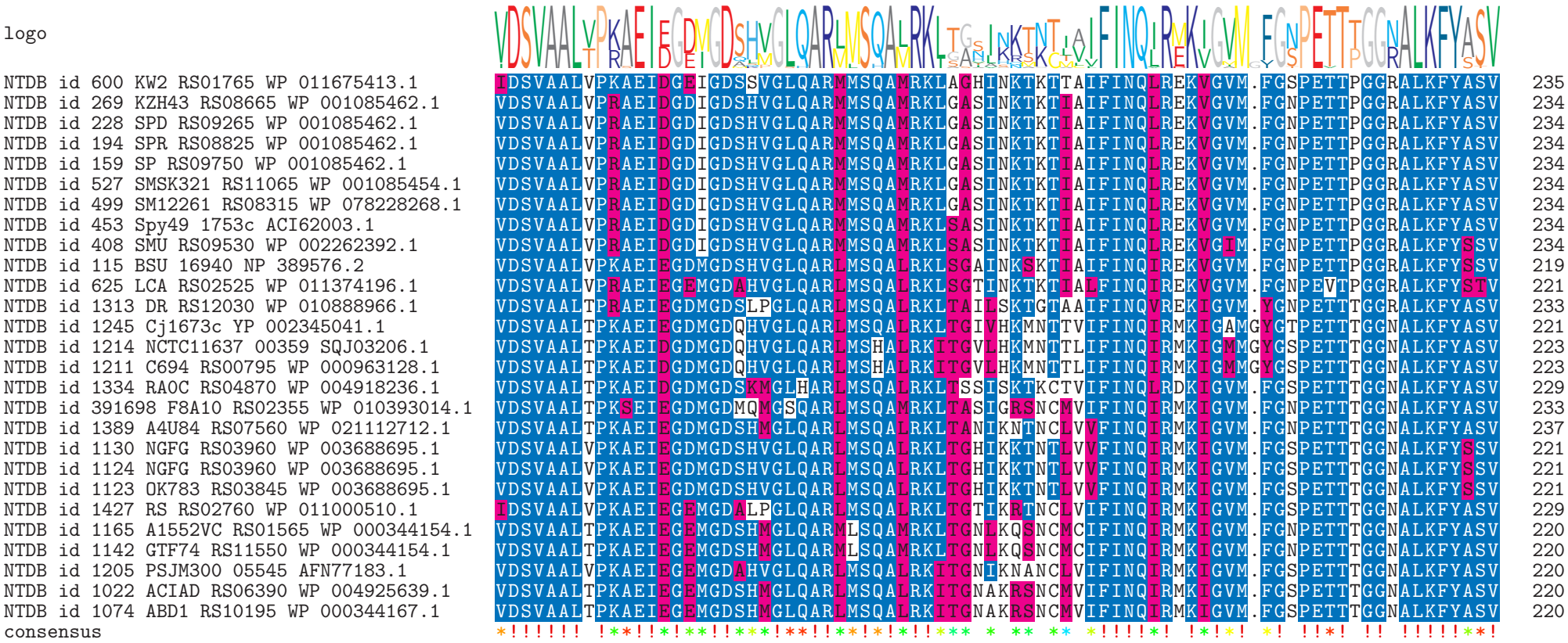
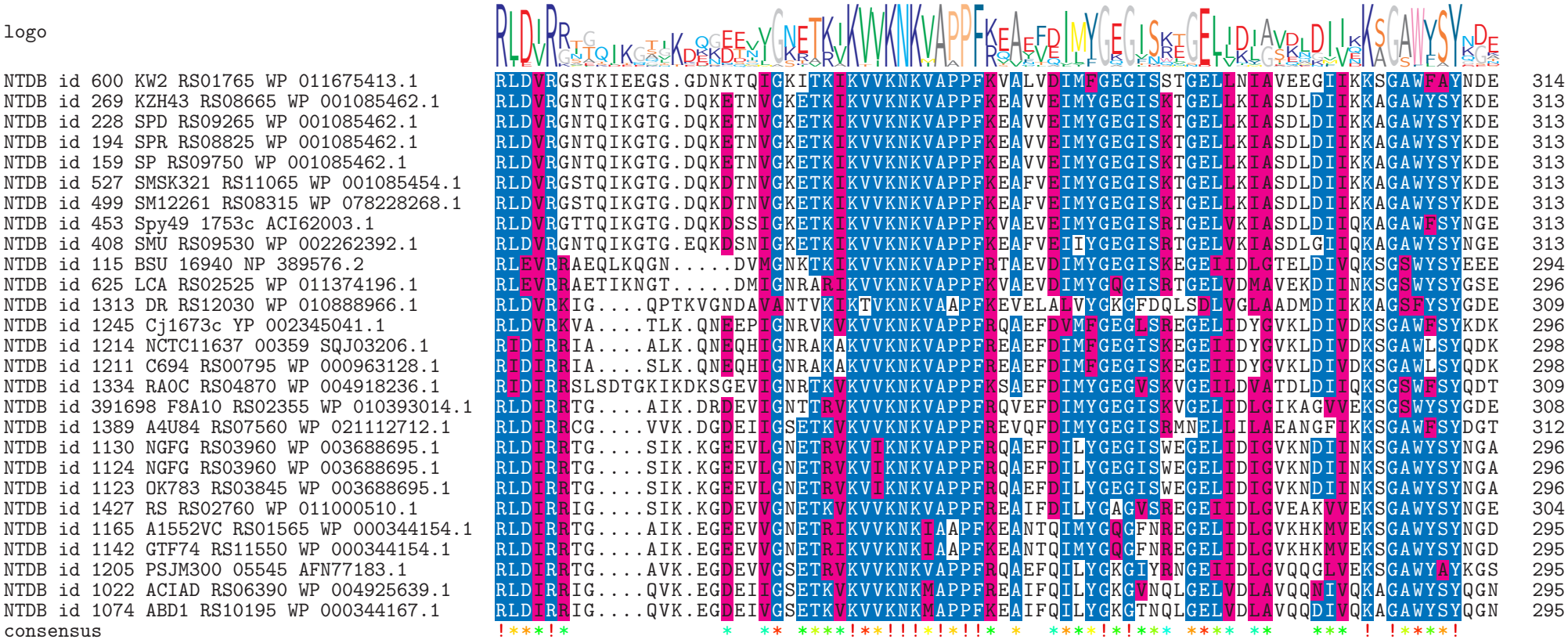

logo
NTDB id 600 KW2 RS01765 WP 011675413.1 MATKK...KTNFDDITKKYGAERDKALADALALIEKDFGKGSLMRLGEA.ANQKVSVVSSGSLALDIALGAGGYPKGRIV 76
NTDB id 269 KZH43 RS08665 WP 001085462.1 .MAKK...PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGRII 75
NTDB id 228 SPD RS09265 WP 001085462.1 .MAKK...PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGRII 75
NTDB id 194 SPR RS08825 WP 001085462.1 .MAKK...PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGRII 75
NTDB id 159 SP RS09750 WP 001085462.1 .MAKK...PKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGRII 75
NTDB id 527 SMSK321 RS11065 WP 001085454.1 .MAKK...PKKLDEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGRII 75
NTDB id 499 SM12261 RS08315 WP 078228268.1 .MAKK...PKKLDEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGRII 75
NTDB id 453 Spy49 1753c ACI62003.1 .MAKK...LKKNEEITKKFGDERRKALDDALKNIEKDFGKGAVMRLGER.AEQKVQVMSSGSLALDIALGAGGYPKGRII 75
NTDB id 408 SMU RS09530 WP 002262392.1 .MAKR...IKKTEEITKKFGDERKKALDDALKNIEKDFGKGAVMRLGER.AEQKVQVMSSGSLALDIALGAGGYPKGRIV 75
NTDB id 115 BSU 16940 NP 389576.2 .....MSDRQAALDMALKQIEKQFGKGSIMKLGEK.TDTRISTVPSGSLALDTALGIGGYPRGRII 60
NTDB id 625 LCA RS02525 WP 011374196.1 .....MAKDERQAALDAALKKIEKNFGKGSIMRMGEK.VDTQVSTVSSGSLALDEALGVGGYPRGRIV 62
NTDB id 1313 DR RS12030 WP 010888966.1 .MSKD....ATKEISAPTDAKERSKAIETAMSQIEKAFGKGSIMKLGAE.SKLDVQVVSTGSLSLDLALGVGGIPRGRIT 74
NTDB id 1245 Cj1673c YP 002345041.1 .....MDDNKRKSLDAALKSLDKTFGKGTILRLGDK.EVEQIDSIGTGSVCLDLALGIGGVPKGRII 61
NTDB id 1214 NCTC11637 00359 SQJ03206.1 .....MAIDEDKQKAISLAIKQIDKVFGKGALVRLGDK.QVEKIDAISTGSLCLDLALGIGGVPKGRII 63
NTDB id 1211 C694 RS00795 WP 000963128.1 .....MAIDEDKQKAISLAIKQIDKVFGKGALVRLGDK.QVEKIDSISTGSLGLDLALGIGGVPKGRII 63
NTDB id 1334 RA0C RS04870 WP 004918236.1 .MA.....KTETTSPNDKKKALAAVLEKLDKTYGKGTVMKLGDGTVDHNIEVIPSGSLGLDLALGVGGYPKGRIV 70
NTDB id 391698 F8A10 RS02355 WP 010393014.1 .MAGA.....TLFDMNDKRSADKQKALDSALAQIERQFGKGSIMRLGADSPVAEIEATSTGSLGLDIALGIGGLPKGRII 74
NTDB id 1389 A4U84 RS07560 WP 021112712.1 .MAENKKSSKNNTVVKQVEPEQKKQALEAALAQIEKQFGKGSIMKLGQT.EQLDIESVSTGSLGLDLALGIGGLPMGRIV 78
NTDB id 1130 NGFG RS03960 WP 003688695.1 .....MSDDKSKALAAALAQIEKSFGKGAIMKMDGSQQEENLEVISTGSLGLDLALGVGGLPRGRIV 62
NTDB id 1124 NGFG RS03960 WP 003688695.1 .....MSDDKSKALAAALAQIEKSFGKGAIMKMDGSQQEENLEVISTGSLGLDLALGVGGLPRGRIV 62
NTDB id 1123 OK783 RS03845 WP 003688695.1 .....MSDDKSKALAAALAQIEKSFGKGAIMKMDGSQQEENLEVISTGSLGLDLALGVGGLPRGRIV 62
NTDB id 1427 RS RS02760 WP 011000510.1 .MEDG.....KKAASMSAEKQKALAAALAQIEKQFGKGSIMKMGDA.EVEPVQVVSTGSLGLDVALGVGGLPRGRVV 70
NTDB id 1165 A1552VC RS01565 WP 000344154.1 .....MDENKQKALAAALGQIEKQFGKGSIMRLGDN.RAMDVETISTGSLSLDIALGAGGLPMGRIV 61
NTDB id 1142 GTF74 RS11550 WP 000344154.1 .....MDENKQKALAAALGQIEKQFGKGSIMRLGDN.RAMDVETISTGSLSLDIALGAGGLPMGRIV 61
NTDB id 1205 PSJM300 05545 AFN77183.1 .....MDENKKRALAAALGQIEKQFGKGAVMRMGDH.DRQAIPSISTGSLGLDIALGIGGLPKGRIV 61
NTDB id 1022 ACIAD RS06390 WP 004925639.1 .....MDDNKSKALQAALSQIEKQFGKNTVMRLGDN.TVQAVEAVSTGSLTLDIALGIGGLPKGRIV 61
NTDB id 1074 ABD1 RS10195 WP 000344167.1 .....MDENKSKALQAALSQIEKQFGKNTVMRLGDN.TVQAVEAVSTGSLTLDIALGIGGLPKGRII 61
consensus


logo
NTDB id 600 KW2 RS01765 WP 011675413.1 EIYGPESSGKTTVALHAVAAVQKEGGIAAFIDAENALDPEYAKALGVNIDELLLSQPDYGEQGLQIAEKLITSGAVDLVV 156
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
NTDB id 527 SMSK321 RS11065 WP 001085454.1 EIYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLLSQPDSGEQGLEIAGKLIDSGAVDLVV 155
NTDB id 499 SM12261 RS08315 WP 078228268.1 EIYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLLSQPDSGEQGLEIAGKLIDSGAVDLVV 155
NTDB id 453 Spy49 1753c ACI62003.1 EIYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLLAQPDSGEQGLEIAGKLIDSGAVDLVV 155
NTDB id 408 SMU RS09530 WP 002262392.1 EIYGPESSGKTTVALHAVAQAQKDGGIAAFIDAEHALDPAYAAALGVNIDELLLSQPDSGEQGLEIAGKLIDSGAVDLVV 155
NTDB id 115 BSU 16940 NP 389576.2 EVYGPESSGKTTVALHAIAEVQQQGGQAAFIDAEHALDPVYAQKLGVNIEELLLSQPDTGEQALEIAEALVRSGAVDIVV 140
NTDB id 625 LCA RS02525 WP 011374196.1 EIYGPESSGKTTVALHAVAEVQKQGGTAAYIDAENAMDPKYATALGVNIDDLLLSQPDTGEQGLEIADALVSSGAVDILV 142
NTDB id 1313 DR RS12030 WP 010888966.1 EIYGPESGGKTTLALAIVAQAQKAGGTCAFIDAEHALDPVYARALGVNTDELLVSQPDNGEQALEIMELLVRSGAIDVVV 154
NTDB id 1245 Cj1673c YP 002345041.1 EIYGPESSGKTTLTLHIIAECQKAGGVCAFIDAEHALDVKYAKNLGVNTDDLYVSQPDFGEQALEIVETIARSGAVDLIV 141
NTDB id 1214 NCTC11637 00359 SQJ03206.1 EIYGPESSGKTTLSLHIIAECQKNGGVCAFIDAEHALDVHYAKRLGVDTENLLVSQPDTGEQALEILETITRSGGIDLVV 143
NTDB id 1211 C694 RS00795 WP 000963128.1 EIYGPESSGKTTLSLHIIAECQKNGGVCAFIDAEHALDVHYAKRLGVDTENLLVSQPDTGEQALEILETITRSGGIDLVV 143
NTDB id 1334 RA0C RS04870 WP 004918236.1 EIYGPESSGKTTLTLHAIAEAQKVGGTAAFIDAEHAFDMHYAEKLGINLEELIVSQPDNGEQALEIADSLIRSGGVDIVV 150
NTDB id 391698 F8A10 RS02355 WP 010393014.1 EVFGPESSGKTTLTLHVVAEEQKKGGVCAFVDAEHALDPQYAKKLGVNLDDLLISQPDTGEQALEIVDTLVRSGAVSLVV 154
NTDB id 1389 A4U84 RS07560 WP 021112712.1 EIYGPESSGKTTLTLSLIAQAQKGNKTCAFIDAEHALDPVYARNLGVNTDELLISQPDNGEQALEICDALVRSGAVDVII 158
NTDB id 1130 NGFG RS03960 WP 003688695.1 EIFGPESSGKTTLCLEAVAQCQKNGGVCAFVDAEHAFDPVYARKLGVKVEELYLSQPDTGEQALEICDTLVRSGGIDMVV 142
NTDB id 1124 NGFG RS03960 WP 003688695.1 EIFGPESSGKTTLCLEAVAQCQKNGGVCAFVDAEHAFDPVYARKLGVKVEELYLSQPDTGEQALEICDTLVRSGGIDMVV 142
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 1205 PSJM300 05545 AFN77183.1 EIYGPESSGKTTLTLSVIAAAQRMGSTCAFVDAEHALDPDYAGKLGVNVDDLLVSQPDTGEQALEITDMLVRSNAVDVII 141
NTDB id 1022 ACIAD RS06390 WP 004925639.1 EIYGPESSGKTTMTLQAIAQCQKAGGTCAFIDAEHALDPQYARKLGVDIDNLLVSQPDHGEQALEIADMLVRSGAIDLIV 141
NTDB id 1074 ABD1 RS10195 WP 000344167.1 EIYGPESSGKTTMTLQAIAQCQKSGGTCAFIDAEHALDPQYARKLGVDIDNLLVSQPDNGEQALEIADMLVRSGAIDLIV 141
consensus


logo
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
NTDB id 527 SMSK321 RS11065 WP 001085454.1 VDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVM.FGNPETTPGGRALKFYASV 234
NTDB id 499 SM12261 RS08315 WP 078228268.1 VDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVM.FGNPETTPGGRALKFYASV 234
NTDB id 453 Spy49 1753c ACI62003.1 VDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLSASINKTKTIAIFINQLREKVGVM.FGNPETTPGGRALKFYASV 234
NTDB id 408 SMU RS09530 WP 002262392.1 VDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLSASINKTKTIAIFINQLREKVGIM.FGNPETTPGGRALKFYSSV 234
NTDB id 115 BSU 16940 NP 389576.2 VDSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLSGAINKSKTIAIFINQIREKVGVM.FGNPETTPGGRALKFYSSV 219
NTDB id 625 LCA RS02525 WP 011374196.1 VDSVAALVPRAEIEGEMGDAHVGLQARLMSQALRKLSGTINKTKTIALFINQIREKVGVM.FGNPEVTPGGRALKFYSTV 221
NTDB id 1313 DR RS12030 WP 010888966.1 VDSVAALTPRAEIEGDMGDSLPGLQARLMSQALRKLTAILSKTGTAAIFINQVREKIGVM.YGNPETTTGGRALKFYASV 233
NTDB id 1245 Cj1673c YP 002345041.1 VDSVAALTPKAEIEGDMGDQHVGLQARLMSQALRKLTGIVHKMNTTVIFINQIRMKIGAMGYGTPETTTGGNALKFYASV 221
NTDB id 1214 NCTC11637 00359 SQJ03206.1 VDSVAALTPKAEIDGDMGDQHVGLQARLMSHALRKITGVLHKMNTTLIFINQIRMKIGMMGYGSPETTTGGNALKFYASV 223
NTDB id 1211 C694 RS00795 WP 000963128.1 VDSVAALTPKAEIDGDMGDQHVGLQARLMSHALRKITGVLHKMNTTLIFINQIRMKIGMMGYGSPETTTGGNALKFYASV 223
NTDB id 1334 RA0C RS04870 WP 004918236.1 VDSVAALTPKAEIDGDMGDSKMGLHARLMSQALRKLTSSISKTKCTVIFINQLRDKIGVM.FGSPETTTGGNALKFYASV 229
NTDB id 391698 F8A10 RS02355 WP 010393014.1 VDSVAALTPKSEIEGDMGDMQMGSQARLMSQAMRKLTASIGRSNCMVIFINQIRMKIGVM.FGNPETTTGGNALKFYASV 233
NTDB id 1389 A4U84 RS07560 WP 021112712.1 VDSVAALTPKAEIEGDMGDSHMGLQARLMSQALRKLTANIKNTNCLVVFINQIRMKIGVM.FGNPETTTGGNALKFYASV 237
NTDB id 1130 NGFG RS03960 WP 003688695.1 VDSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLTGHIKKTNTLVVFINQIRMKIGVM.FGSPETTTGGNALKFYSSV 221
NTDB id 1124 NGFG RS03960 WP 003688695.1 VDSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLTGHIKKTNTLVVFINQIRMKIGVM.FGSPETTTGGNALKFYSSV 221
NTDB id 1123 OK783 RS03845 WP 003688695.1 VDSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLTGHIKKTNTLVVFINQIRMKIGVM.FGSPETTTGGNALKFYSSV 221
NTDB id 1427 RS RS02760 WP 011000510.1 IDSVAALVPKAEIEGEMGDALPGLQARLMSQALRKLTGTIKRTNCLVIFINQIRMKIGVM.FGSPETTTGGNALKFYASV 229
NTDB id 1165 A1552VC RS01565 WP 000344154.1 VDSVAALTPKAEIEGEMGDSHMGLQARMLSQAMRKLTGNLKQSNCMCIFINQIRMKIGVM.FGNPETTTGGNALKFYASV 220
NTDB id 1142 GTF74 RS11550 WP 000344154.1 VDSVAALTPKAEIEGEMGDSHMGLQARMLSQAMRKLTGNLKQSNCMCIFINQIRMKIGVM.FGNPETTTGGNALKFYASV 220
NTDB id 1205 PSJM300 05545 AFN77183.1 VDSVAALVPKAEIEGEMGDAHVGLQARLMSQALRKITGNIKNANCLVIFINQIRMKIGVM.FGSPETTTGGNALKFYASV 220
NTDB id 1022 ACIAD RS06390 WP 004925639.1 VDSVAALTPKAEIEGEMGDSHMGLQARLMSQALRKITGNAKRSNCMVIFINQIRMKIGVM.FGSPETTTGGNALKFYASV 220
NTDB id 1074 ABD1 RS10195 WP 000344167.1 VDSVAALTPKAEIEGEMGDSHMGLQARLMSQALRKITGNAKRSNCMVIFINQIRMKIGVM.FGSPETTTGGNALKFYASV 220
consensus


logo
NTDB id 600 KW2 RS01765 WP 011675413.1 RLDVRGSTKIEEGS.GDNKTQIGKITKIKVVKNKVAPPFKVALVDIMFGEGISSTGELLNIAVEEGIIKKSGAWFAYNDE 314
NTDB id 269 KZH43 RS08665 WP 001085462.1 RLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKEAVVEIMYGEGISKTGELLKIASDLDIIKKAGAWYSYKDE 313
NTDB id 228 SPD RS09265 WP 001085462.1 RLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKEAVVEIMYGEGISKTGELLKIASDLDIIKKAGAWYSYKDE 313
NTDB id 194 SPR RS08825 WP 001085462.1 RLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKEAVVEIMYGEGISKTGELLKIASDLDIIKKAGAWYSYKDE 313
NTDB id 159 SP RS09750 WP 001085462.1 RLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKEAVVEIMYGEGISKTGELLKIASDLDIIKKAGAWYSYKDE 313
NTDB id 527 SMSK321 RS11065 WP 001085454.1 RLDVRGSTQIKGTG.DQKDTNVGKETKIKVVKNKVAPPFKEAFVEIMYGEGISKTGELLKIASDLDIIKKAGAWYSYKDE 313
NTDB id 499 SM12261 RS08315 WP 078228268.1 RLDVRGSTQIKGTG.DQKDTNVGKETKIKVVKNKVAPPFKEAFVEIMYGEGISKTGELLKIASDLDIIKKAGAWYSYKDE 313
NTDB id 453 Spy49 1753c ACI62003.1 RLDVRGTTQIKGTG.DQKDSSIGKETKIKVVKNKVAPPFKVAEVEIMYGEGISRTGELVKIASDLDIIQKAGAWFSYNGE 313
NTDB id 408 SMU RS09530 WP 002262392.1 RLDVRGNTQIKGTG.EQKDSNIGKETKIKVVKNKVAPPFKEAFVEIIYGEGISRTGELVKIASDLGIIQKAGAWYSYNGE 313
NTDB id 115 BSU 16940 NP 389576.2 RLEVRRAEQLKQGN.....DVMGNKTKIKVVKNKVAPPFRTAEVDIMYGEGISKEGEIIDLGTELDIVQKSGSWYSYEEE 294
NTDB id 625 LCA RS02525 WP 011374196.1 RLEVRRAETIKNGT.....DMIGNRARIKVVKNKVAPPFKVAEVDIMYGQGISRTGELVDMAVEKDIINKSGSWYSYGSE 296
NTDB id 1313 DR RS12030 WP 010888966.1 RLDVRKIG....QPTKVGNDAVANTVKIKTVKNKVAAPFKEVELALVYGKGFDQLSDLVGLAADMDIIKKAGSFYSYGDE 309
NTDB id 1245 Cj1673c YP 002345041.1 RLDVRKVA....TLK.QNEEPIGNRVKVKVVKNKVAPPFRQAEFDVMFGEGLSREGELIDYGVKLDIVDKSGAWFSYKDK 296
NTDB id 1214 NCTC11637 00359 SQJ03206.1 RIDIRRIA....ALK.QNEQHIGNRAKAKVVKNKVAPPFREAEFDIMFGEGISKEGEIIDYGVKLDIVDKSGAWLSYQDK 298
NTDB id 1211 C694 RS00795 WP 000963128.1 RIDIRRIA....SLK.QNEQHIGNRAKAKVVKNKVAPPFREAEFDIMFGEGISKEGEIIDYGVKLDIVDKSGAWLSYQDK 298
NTDB id 1334 RA0C RS04870 WP 004918236.1 RIDIRRSLSDTGKIKDKSGEVIGNRTKVKVVKNKVAPPFKSAEFDIMYGEGVSKVGEILDVATDLDIIQKSGSWFSYQDT 309
NTDB id 391698 F8A10 RS02355 WP 010393014.1 RLDIRRTG....AIK.DRDEVIGNTTRVKVVKNKVAPPFRQVEFDIMYGEGISKVGELIDLGIKAGVVEKSGSWYSYGDE 308
NTDB id 1389 A4U84 RS07560 WP 021112712.1 RLDIRRCG....VVK.DGDEIIGSETKVKVVKNKVAPPFREVQFDIMYGEGISRMNELLILAEANGFIKKSGAWFSYDGT 312
NTDB id 1130 NGFG RS03960 WP 003688695.1 RLDIRRTG....SIK.KGEEVLGNETRVKVIKNKVAPPFRQAEFDILYGEGISWEGELIDIGVKNDIINKSGAWYSYNGA 296
NTDB id 1124 NGFG RS03960 WP 003688695.1 RLDIRRTG....SIK.KGEEVLGNETRVKVIKNKVAPPFRQAEFDILYGEGISWEGELIDIGVKNDIINKSGAWYSYNGA 296
NTDB id 1123 OK783 RS03845 WP 003688695.1 RLDIRRTG....SIK.KGEEVLGNETRVKVIKNKVAPPFRQAEFDILYGEGISWEGELIDIGVKNDIINKSGAWYSYNGA 296
NTDB id 1427 RS RS02760 WP 011000510.1 RLDIRRIG....SIK.KGDEVVGNETKVKVVKNKVAPPFREAIFDILYGAGVSREGEIIDLGVEAKVVEKSGAWYSYNGE 304
NTDB id 1165 A1552VC RS01565 WP 000344154.1 RLDIRRTG....AIK.EGEEVVGNETRIKVVKNKIAAPFKEANTQIMYGQGFNREGELIDLGVKHKMVEKSGAWYSYNGD 295
NTDB id 1142 GTF74 RS11550 WP 000344154.1 RLDIRRTG....AIK.EGEEVVGNETRIKVVKNKIAAPFKEANTQIMYGQGFNREGELIDLGVKHKMVEKSGAWYSYNGD 295
NTDB id 1205 PSJM300 05545 AFN77183.1 RLDIRRTG....AVK.EGDEVVGSETRVKVVKNKVAPPFRQAEFQILYGKGIYRNGEIIDLGVQQGLVEKSGAWYAYKGS 295
NTDB id 1022 ACIAD RS06390 WP 004925639.1 RLDIRRIG....QVK.EGDEIIGSETKVKVVKNKMAPPFREAIFQILYGKGVNQLGELVDLAVQQNIVQKAGAWYSYQGN 295
NTDB id 1074 ABD1 RS10195 WP 000344167.1 RLDIRRIG....QVK.EGDEIVGSETKVKVVKNKMAPPFKEAIFQILYGKGTNQLGELVDLAVQQDIVQKAGAWYSYQGN 295
consensus




```
NTDB id 600 KW2 RS01765 WP 011675413.1     KIGQGAEKAKNYLKEHQDVFDEIDHKVRAAHGLLDDSEVAETEEETTASKTKAKAKKEEKAVETEEIELELED.......   387
NTDB id 269 KZH43 RS08665 WP 001085462.1   KIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIEIE   387
NTDB id 228 SPD RS09265 WP 001085462.1     KIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIEIE   387
NTDB id 194 SPR RS08825 WP 001085462.1     KIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIEIE   387
NTDB id 159 SP RS09750 WP 001085462.1      KIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIEIE   387
NTDB id 527 SMSK321 RS11065 WP 001085454.1 KIGQGSENAKKYLADNPEVFAEIDHQVRVQFGLIDGEEAAE....SKKDE....VAQVDS..VNEEVTLDLGDELEIEIE   383
NTDB id 499 SM12261 RS08315 WP 078228268.1 KIGQGSENAKKYLADNPEIFDEIDHQVRVQFGLIDGEEIAE....SKKDE....AAQVDS..VNEEVTLDLGDELEIEIE   383
NTDB id 453 Spy49 1753c ACI62003.1         KIGQGSENAKRYLADHPQLFDEIDRKVRVKFGLLEESEEESAMAVASE.......E.......TDDLALDLDNGIEIED.   378
NTDB id 408 SMU RS09530 WP 002262392.1     KIGQGSENAKKFLADNPEIFDDIDHKVRVQYGLIEEDNTEEKQSSKEK.......ETDEK..ADKNLVLELDDTIELED.   383
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 1313 DR RS12030 WP 010888966.1     RIGQGKEKTIAYIAERPEMEQEIRDRVMAAIRAGNAGEAPALAPAPAAPEAAEA.........................   363
NTDB id 1245 Cj1673c YP 002345041.1        KLGQGRENSKAFLKENPEIADEITKAIQNSMGIEGMI.....SGSEDDEG..EE.........................   343
NTDB id 1214 NCTC11637 00359 SQJ03206.1    KLGQGRENAKALLKEDKALADEITLKIKESIGSNEEI.....MPLPDEPL..EEME.......................   347
NTDB id 1211 C694 RS00795 WP 000963128.1   KLGQGRENAKALLKEDKALADEITLKIKESIGSNEEI.....MPLPDEPL..EEME.......................   347
NTDB id 1334 RA0C RS04870 WP 004918236.1   KLGQGRDTVKELIKDNPELAEELEAKIREKLQAK.........................................   343
NTDB id 391698 F8A10 RS02355 WP 010393014.1 RIGQGRENAKQYLRDHPDVAYAIEDKIRASHGLDFGV.....AEDGD..EVMADE.....................   356
NTDB id 1389 A4U84 RS07560 WP 021112712.1  KIGQGKNNAVKWLKENPEIADKLEQEIRNTLASNPNS.....VLKATASDSNDESDV..EEFSEEEL.............   372
NTDB id 1130 NGFG RS03960 WP 003688695.1   KIGQGKDNVRVWLKENPEISDEIDAKIRALNGVEMHI.....TEGT......QDETD..GERPEE...............   348
NTDB id 1124 NGFG RS03960 WP 003688695.1   KIGQGKDNVRVWLKENPEISDEIDAKIRALNGVEMHI.....TEGT......QDETD..GERPEE...............   348
NTDB id 1123 OK783 RS03845 WP 003688695.1  KIGQGKDNVRVWLKENPEISDEIDAKIRALNGVEMHI.....TEGT......QDETD..GERPEE...............   348
NTDB id 1427 RS RS02760 WP 011000510.1     RIGQGRDNCREFLRENAELAREIENKVREHLGVTPMG.....AV.TLAEEVEED.........................   352
NTDB id 1165 A1552VC RS01565 WP 000344154.1 KIGQGKANACKYLKENPEIAKTLDKKLREMLLNPENM.....QLIAETSSAADDVEF..GAVPEEF.............   354
NTDB id 1142 GTF74 RS11550 WP 000344154.1  KIGQGKANACKYLKENPEIAKTLDKKLREMLLNPENM.....QLIAETSSAADDVEF..GAVPEEF.............   354
NTDB id 1205 PSJM300 05545 AFN77183.1      KIGQGKANAAKYLEENPEIGQEIEQQIRAKLLVTSAN.....TKATPVAEDLADADI.....................   347
NTDB id 1022 ACIAD RS06390 WP 004925639.1  KIGQGKNNVIRYLEENPQISTEIEAVIREQLLTKASD.....QTAA.HDETEEEPDL..L..ES...............   349
NTDB id 1074 ABD1 RS10195 WP 000344167.1   KIGQGKNNVIRYFEENNQIAEEIERNIREQLLTTGTN.....GAVQ.I.EDEEEPDL..L..LES...............   349
consensus                                  **!!!***** ** * *** **** **    **
```

```
logo
                                          E
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 453 Spy49 1753c ACI62003.1        .   378
NTDB id 408 SMU RS09530 WP 002262392.1    .   383
NTDB id 115 BSU 16940 NP 389576.2         .   348
NTDB id 625 LCA RS02525 WP 011374196.1    .   355
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 RA0C RS04870 WP 004918236.1  .   343
NTDB id 391698 F8A10 RS02355 WP 010393014.1 . 356
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
```

X non conserved
X similar
X ≥ 50% conserved