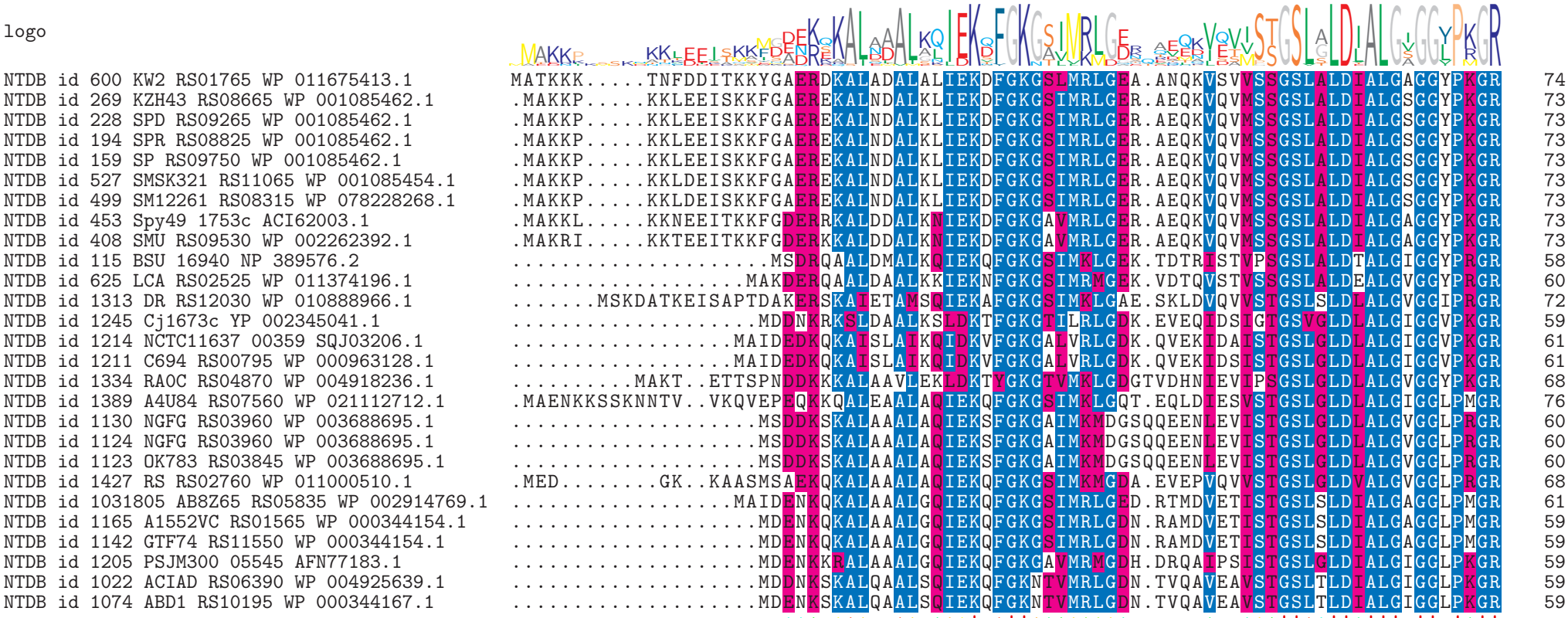
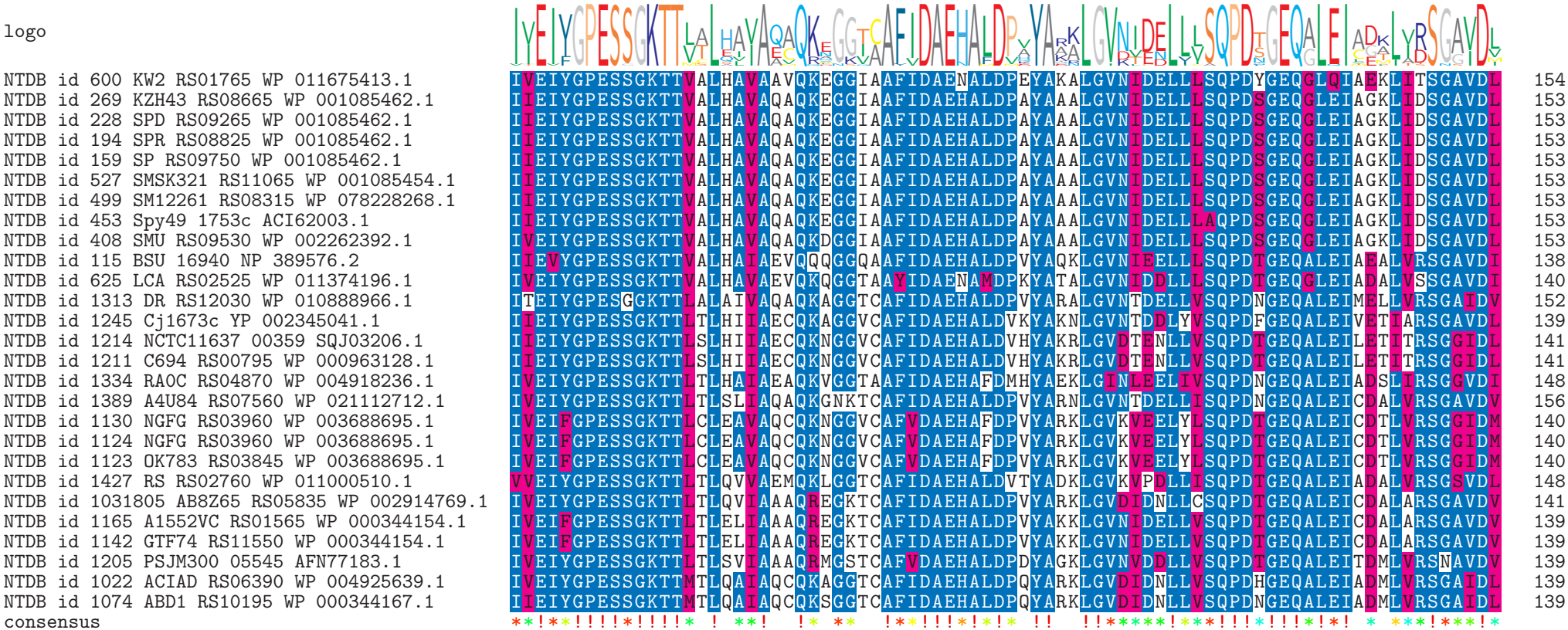
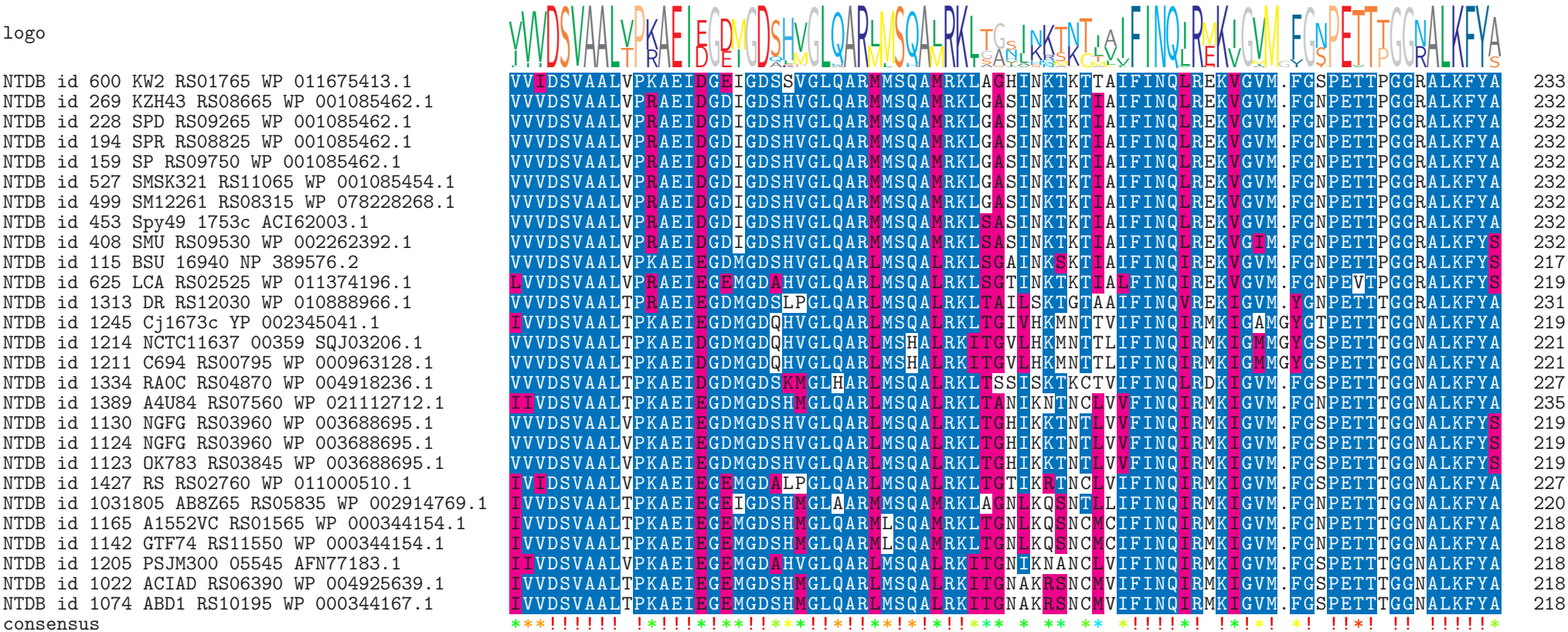
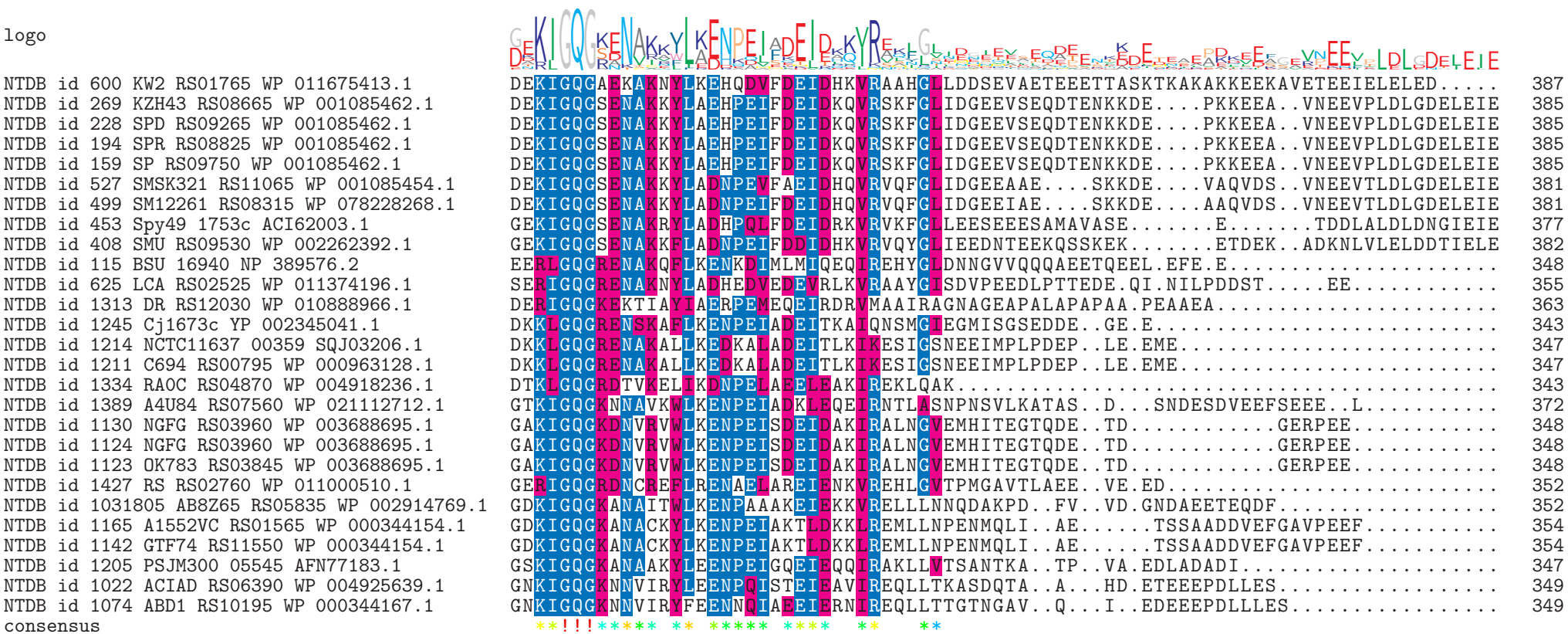

logo
NTDB id 600 KW2 RS01765 WP 011675413.1 MATKKK.....TNFDDITKKYGAERDKALADALALIEKDFGKGSLMRLGEA.ANQKVSVVSSGSLALDIALGAGGYPKGR 74
NTDB id 269 KZH43 RS08665 WP 001085462.1 .MAKKP.....KKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR 73
NTDB id 228 SPD RS09265 WP 001085462.1 .MAKKP.....KKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR 73
NTDB id 194 SPR RS08825 WP 001085462.1 .MAKKP.....KKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR 73
NTDB id 159 SP RS09750 WP 001085462.1 .MAKKP.....KKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR 73
NTDB id 527 SMSK321 RS11065 WP 001085454.1 .MAKKP.....KKLDEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR 73
NTDB id 499 SM12261 RS08315 WP 078228268.1 .MAKKP.....KKLDEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR 73
NTDB id 453 Spy49 1753c ACI62003.1 .MAKKL.....KKNEEITKKFGDERRKALDDALKNIEKDFGKGAVMRLGER.AEQKVQVMSSGSLALDIALGAGGYPKGR 73
NTDB id 408 SMU RS09530 WP 002262392.1 .MAKRI.....KKTEEITKKFGDERKKALDDALKNIEKDFGKGAVMRLGER.AEQKVQVMSSGSLALDIALGAGGYPKGR 73
NTDB id 115 BSU 16940 NP 389576.2 .....MSDRQAALDMALKQIEKQFGKGSIMKLGEK.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 1214 NCTC11637 00359 SQJ03206.1 .....MAIDEDKQKAISLAIKQIDKVFGKGALVRLGDK.QVEKIDAISTGSLGLDLALGIGGVPKGR 61
NTDB id 1211 C694 RS00795 WP 000963128.1 .....MAIDEDKQKAISLAIKQIDKVFGKGALVRLGDK.QVEKIDSISTGSLGLDLALGIGGVPKGR 61
NTDB id 1334 RA0C 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 .MED.....GK..KAASMSAEKQKALAAALAQIEKQFGKGSIMKMGDA.EVEPVQVVSTGSLGLDVALGVGGLPRGR 68
NTDB id 1031805 AB8Z65 RS05835 WP 002914769.1 .....MAIDENKQKALAAALGQIEKQFGKGSIMRLGED.RTMDVETISTGSLSLDIALGAGGLPMGR 61
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


logo
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 IVEIYGPESSGKTTVALHAVAQAQKDGGIAAFIDAEHALDPAYAAALGVNIDELLLSQPDSGEQGLEIAGKLIDSGAVDL 153
NTDB id 115 BSU 16940 NP 389576.2 IIEVYGPESSGKTTVALHAIAEVQQQGGQAAFIDAEHALDPVYAQKLGVNIEELLLSQPDTGEQALEIAEALVRSGAVDI 138
NTDB id 625 LCA RS02525 WP 011374196.1 IVEIYGPESSGKTTVALHAVAEVQKQGGTAAYIDAENAMDPKYATALGVNIDDLLLSQPDTGEQGLEIADALVSSGAVDI 140
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 RA0C 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 1031805 AB8Z65 RS05835 WP 002914769.1 IVEIYGPESSGKTTLTLQVIAAAQREGKTCAFIDAEHALDPVYARKLGVDIDNLLCSQPDTGEQALEICDALARSGAVDV 141
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 **!**!!!!*!!!!* ! **! !* ** !**!!!*!*!* !! !!***** !***!!!*!!!*!*! * ***!***!*


logo
NTDB id 600 KW2 RS01765 WP 011675413.1 VVIDSVAALVPKAEIDGEIGDSSVGLQARMMSQAMRKLAGHINKTKTTAIFINQLREKVGVM.FGSPETTPGGRALKFYA 233
NTDB id 269 KZH43 RS08665 WP 001085462.1 VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTTAIFINQLREKVGVM.FGNPETTPGGRALKFYA 232
NTDB id 228 SPD RS09265 WP 001085462.1 VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTTAIFINQLREKVGVM.FGNPETTPGGRALKFYA 232
NTDB id 194 SPR RS08825 WP 001085462.1 VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTTAIFINQLREKVGVM.FGNPETTPGGRALKFYA 232
NTDB id 159 SP RS09750 WP 001085462.1 VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTTAIFINQLREKVGVM.FGNPETTPGGRALKFYA 232
NTDB id 527 SMSK321 RS11065 WP 001085454.1 VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTTAIFINQLREKVGVM.FGNPETTPGGRALKFYA 232
NTDB id 499 SM12261 RS08315 WP 078228268.1 VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTTAIFINQLREKVGVM.FGNPETTPGGRALKFYA 232
NTDB id 453 Spy49 1753c ACI62003.1 VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLSASINKTKTTAIFINQLREKVGVM.FGNPETTPGGRALKFYA 232
NTDB id 408 SMU RS09530 WP 002262392.1 VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLSASINKTKTTAIFINQLREKVGIM.FGNPETTPGGRALKFYS 232
NTDB id 115 BSU 16940 NP 389576.2 VVVDSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLSGAINKSKTTAIFINQIREKVGVM.FGNPETTPGGRALKFYS 217
NTDB id 625 LCA RS02525 WP 011374196.1 LVVDSVAALVPRAEIEGEMGDAHVGLQARLMSQALRKLSGTINKTKTTALFINQIREKVGVM.FGNPEVTPGGRALKFYS 219
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 RA0C 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 IVIDSVAALVPKAEIEGEMGDALPGLQARLMSQALRKLTGTIKRTNCLVIFINQIRMKIGVM.FGSPETTTGGNALKFYA 227
NTDB id 1031805 AB8Z65 RS05835 WP 002914769.1 IVVDSVAALTPKAEIEGEIGDSHMGLAARMMSQAMRKLAGNLKQSNTLLIFINQIRMKIGVM.FGNPETTTGGNALKFYA 220
NTDB id 1165 A1552VC RS01565 WP 000344154.1 IVVDSVAALTPKAEIEGEMGDSHMGLQARMLSQAMRKLTGNLKQSNCMCIFINQIRMKIGVM.FGNPETTTGGNALKFYA 218
NTDB id 1142 GTF74 RS11550 WP 000344154.1 IVVDSVAALTPKAEIEGEMGDSHMGLQARMLSQAMRKLTGNLKQSNCMCIFINQIRMKIGVM.FGNPETTTGGNALKFYA 218
NTDB id 1205 PSJM300 05545 AFN77183.1 IIVDSVAALVPKAEIEGEMGDAHVGLQARLMSQALRKITGNIKNANCLVIFINQIRMKIGVM.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




```
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 527 SMSK321 RS11065 WP 001085454.1      SVRLDVRGSTQIKGTG.DQKDTNVGKETKIKVVKNKVAPPFKEAFVEIMYGEGISKTGELLKIASDLDIIKKAGAWYSYK  311
NTDB id 499 SM12261 RS08315 WP 078228268.1      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.....DVMGNKTKIKVVKNKVAPPFRTAEVDIMYGEGISKEGEIIDLGTELDIVQKSGSWYSYE  292
NTDB id 625 LCA RS02525 WP 011374196.1          TVRLEVRRAETIKNGT.....DMIGNRARIKVVKNKVAPPFKVAEVDIMYGQGISRTGELVDMAVEKDIINKSGSWYSYG  294
NTDB id 1313 DR RS12030 WP 010888966.1          SVRLDVRKIGQ....PTKVGNDAVANTVKIKIVKNKVAAPFKEVELALVYGKGFDQLSDLVGLAADMDIIKKAGSFYSYG  307
NTDB id 1245 Cj1673c YP 002345041.1             SVRLDVRKVAT....L.KQNEEPIGNRVKVKVVKNKVAPPFRQAEFDVMFGEGLSREGELIDYGVKLDIVDKSGAWFSYK  294
NTDB id 1214 NCTC11637 00359 SQJ03206.1         SVRIDIRRIAA....L.KQNEQHIGNRAKAKVVKNKVAPPFREAEFDIMFGEGISKEGEIIDYGVKLDIVDKSGAWLSYQ  296
NTDB id 1211 C694 RS00795 WP 000963128.1        SVRIDIRRIAS....L.KQNEQHIGNRAKAKVVKNKVAPPFREAEFDIMFGEGISKEGEIIDYGVKLDIVDKSGAWLSYQ  296
NTDB id 1334 RA0C RS04870 WP 004918236.1        SVRIDIRRSLSDTGKIKDKSGEVIGNRTKVKVVKNKVAPPFKSAEFDIMYGEGVSKVGEILDVATDLDIIQKSGSWFSYQ  307
NTDB id 1389 A4U84 RS07560 WP 021112712.1       SVRLDIRRCGV....V.KDGDEIIGSETKVKVVKNKVAPPFREVQFDIMYGEGISRMNELLILAEANGFIKKSGAWFSYD  310
NTDB id 1130 NGFG RS03960 WP 003688695.1        SVRLDIRRTGS....I.KKGEEVLGNETRVKVIKNKVAPPFRQAEFDILYGEGISWEGELIDIGVKNDIINKSGAWYSYN  294
NTDB id 1124 NGFG RS03960 WP 003688695.1        SVRLDIRRTGS....I.KKGEEVLGNETRVKVIKNKVAPPFRQAEFDILYGEGISWEGELIDIGVKNDIINKSGAWYSYN  294
NTDB id 1123 OK783 RS03845 WP 003688695.1       SVRLDIRRTGS....I.KKGEEVLGNETRVKVIKNKVAPPFRQAEFDILYGEGISWEGELIDIGVKNDIINKSGAWYSYN  294
NTDB id 1427 RS RS02760 WP 011000510.1          SVRLDIRRIGS....I.KKGDEVVGNETKVKVVKNKVAPPFREAIFDILYGAGVSREGEIIDLGVEAKVVEKSGAWYSYN  302
NTDB id 1031805 AB8Z65 RS05835 WP 002914769.1   SVRLDIRRIGA....V.KEGDNVVGSETRVKVVKNKIAAPFKQAEFQILYGEGINFYGELVDLGVKEKLIEKAGAWYSYN  295
NTDB id 1165 A1552VC RS01565 WP 000344154.1     SVRLDIRRTGA....I.KEGEEVVGNETRIKVVKNKIAAPFKEANTQIMYGQGFNREGELIDLGVKHKMVEKSGAWYSYN  293
NTDB id 1142 GTF74 RS11550 WP 000344154.1       SVRLDIRRTGA....I.KEGEEVVGNETRIKVVKNKIAAPFKEANTQIMYGQGFNREGELIDLGVKHKMVEKSGAWYSYN  293
NTDB id 1205 PSJM300 05545 AFN77183.1           SVRLDIRRTGA....V.KEGDEVVGSETRVKVVKNKVAPPFRQAEFQILYGKGIYRNGEIIDLGVQQGLVEKSGAWYAYK  293
NTDB id 1022 ACIAD RS06390 WP 004925639.1       SVRLDIRRIGQ....V.KEGDEIIGSETKVKVVKNKMAPPFREAIFQILYGKGVNQLGELVDLAVQQNIVQKAGAWYSYQ  293
NTDB id 1074 ABD1 RS10195 WP 000344167.1        SVRLDIRRIGQ....V.KEGDEIVGSETKVKVVKNKMAPPFKEAIFQILYGKGTNQLGELVDLAVQQDIVQKAGAWYSYQ  293
consensus                                       *!!***!*           *  **  ****!**!!!*!*!!* *  ****!*!*** **** **   *** ! !****!
```


logo
NTDB id 600 KW2 RS01765 WP 011675413.1 DEKIGQGAEKAKNYLKEHQDVFDEIDHKVRAAHGLLDDSEVAETEEETTASKTKAKAKKEEKAVETEEIELELED..... 387
NTDB id 269 KZH43 RS08665 WP 001085462.1 DEKIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIE 385
NTDB id 228 SPD RS09265 WP 001085462.1 DEKIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIE 385
NTDB id 194 SPR RS08825 WP 001085462.1 DEKIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIE 385
NTDB id 159 SP RS09750 WP 001085462.1 DEKIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIE 385
NTDB id 527 SMSK321 RS11065 WP 001085454.1 DEKIGQGSENAKKYLADNPEVFAEIDHQVRVQFGLIDGEEAAE....SKKDE....VAQVDS..VNEEVTLDLGDELEIE 381
NTDB id 499 SM12261 RS08315 WP 078228268.1 DEKIGQGSENAKKYLADNPEIFDEIDHQVRVQFGLIDGEEIAE....SKKDE....AAQVDS..VNEEVTLDLGDELEIE 381
NTDB id 453 Spy49 1753c ACI62003.1 GEKIGQGSENAKRYLADHPQLFDEIDRKVRVKFGLLEESEEESAMAVASE.......E.......TDDLALDLDNGIEIE 377
NTDB id 408 SMU RS09530 WP 002262392.1 GEKIGQGSENAKKFLADNPEIFDDIDHKVRVQYGLIEEDNTEEKQSSKEK.......ETDEK..ADKNLVLELDDTIELE 382
NTDB id 115 BSU 16940 NP 389576.2 EERLGQGRENAKQFLKENKDIMLMIQEQIREHYGLDNNGVVQQQAEETQEEL.EFE.E..... 348
NTDB id 625 LCA RS02525 WP 011374196.1 SERIGQGRENAKNYLADHEDVEDEVRLKVRAAYGISDVPEEDLPTTEDE.QI.NILPDDST.....EE..... 355
NTDB id 1313 DR RS12030 WP 010888966.1 DERIGQGKEKTIAYIAERPEMEQEIRDRVMAAIRAGNAGEAPALAPAPAA.PEAAEA..... 363
NTDB id 1245 Cj1673c YP 002345041.1 DKKLGQGRENSKAFLKENPEIADEITKAIQNSMGIEGMISGSEDDE..GE.E..... 343
NTDB id 1214 NCTC11637 00359 SQJ03206.1 DKKLGQGRENAKALLKEDKALADEITLKIKESIGSNEEIMPLPDEP..LE.EME..... 347
NTDB id 1211 C694 RS00795 WP 000963128.1 DKKLGQGRENAKALLKEDKALADEITLKIKESIGSNEEIMPLPDEP..LE.EME..... 347
NTDB id 1334 RA0C RS04870 WP 004918236.1 DTKLGQGRDTVKELIKDNPELAEELEAKIREKLQAK..... 343
NTDB id 1389 A4U84 RS07560 WP 021112712.1 GTKIGQGKNNAVKWLKENPEIADKLEQEIRNTLASNPNSVLKATAS..D...SNDESDVEEFSEEE..L..... 372
NTDB id 1130 NGFG RS03960 WP 003688695.1 GAKIGQGKDNVRVWLKENPEISDEIDAKIRALNGVEMHITEGTQDE..TD.....GERPEE..... 348
NTDB id 1124 NGFG RS03960 WP 003688695.1 GAKIGQGKDNVRVWLKENPEISDEIDAKIRALNGVEMHITEGTQDE..TD.....GERPEE..... 348
NTDB id 1123 OK783 RS03845 WP 003688695.1 GAKIGQGKDNVRVWLKENPEISDEIDAKIRALNGVEMHITEGTQDE..TD.....GERPEE..... 348
NTDB id 1427 RS RS02760 WP 011000510.1 GERIGQGRDNCREFLRENAELAREIENKVREHLGVTPMGAVTLAEE..VE.ED..... 352
NTDB id 1031805 AB8Z65 RS05835 WP 002914769.1 GDKIGQGKANAITWLKENPAAAKEIEKKVRELLLNNQDAKPD..FV..VD.GNDAEETEQDF..... 352
NTDB id 1165 A1552VC RS01565 WP 000344154.1 GDKIGQGKANACKYLKENPEIAKTLDKKLREMLLNPENMQLI..AE.....TSSAADDVEFGAVPEEF..... 354
NTDB id 1142 GTF74 RS11550 WP 000344154.1 GDKIGQGKANACKYLKENPEIAKTLDKKLREMLLNPENMQLI..AE.....TSSAADDVEFGAVPEEF..... 354
NTDB id 1205 PSJM300 05545 AFN77183.1 GSKIGQGKANAAKYLEENPEIGQEIEQQIRAKLLVTSANTKA..TP..VA.EDLADADI..... 347
NTDB id 1022 ACIAD RS06390 WP 004925639.1 GNKIGQGKNNVIRYLEENPQISTEIEAVIREQLLTKASDQTA..A...HD.ETEEEPDLLES..... 349
NTDB id 1074 ABD1 RS10195 WP 000344167.1 GNKIGQGKNNVIRYFEENNQIAEEIERNIREQLLTTGTNGAV..Q...I..EDEEEPDLLLES..... 349
consensus

```
logo                                                 LEE
NTDB id 600 KW2 RS01765 WP 011675413.1          ...   387
NTDB id 269 KZH43 RS08665 WP 001085462.1        IEE   388
NTDB id 228 SPD RS09265 WP 001085462.1          IEE   388
NTDB id 194 SPR RS08825 WP 001085462.1          IEE   388
NTDB id 159 SP RS09750 WP 001085462.1           IEE   388
NTDB id 527 SMSK321 RS11065 WP 001085454.1      IEE   384
NTDB id 499 SM12261 RS08315 WP 078228268.1      IEE   384
NTDB id 453 Spy49 1753c ACI62003.1              D..   378
NTDB id 408 SMU RS09530 WP 002262392.1          D..   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 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 1031805 AB8Z65 RS05835 WP 002914769.1   ...   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