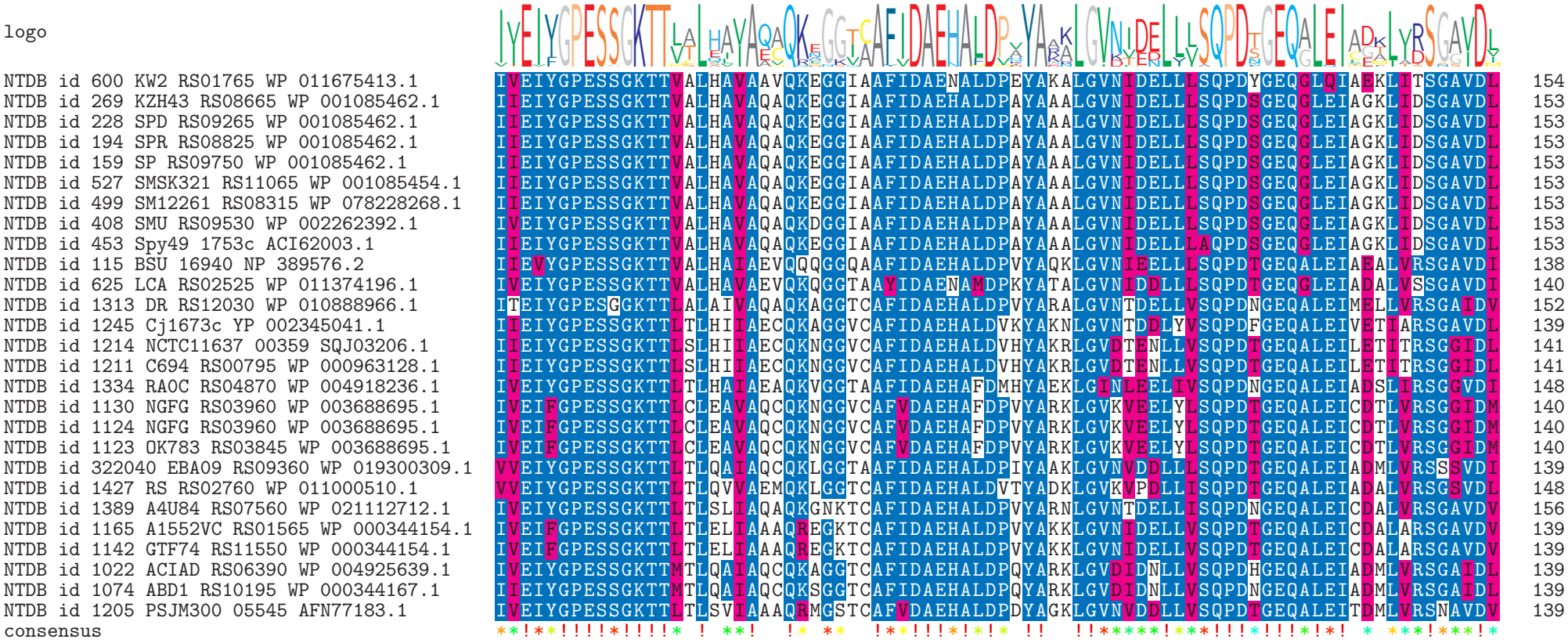
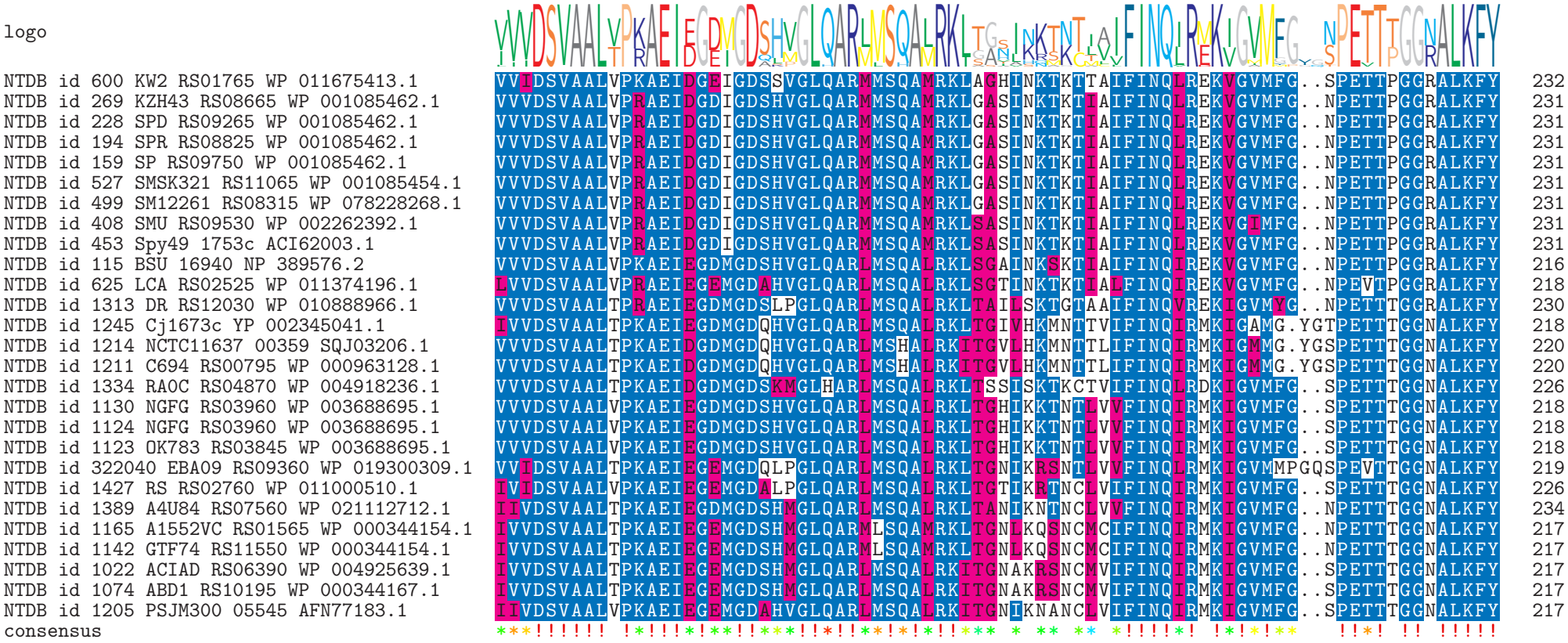
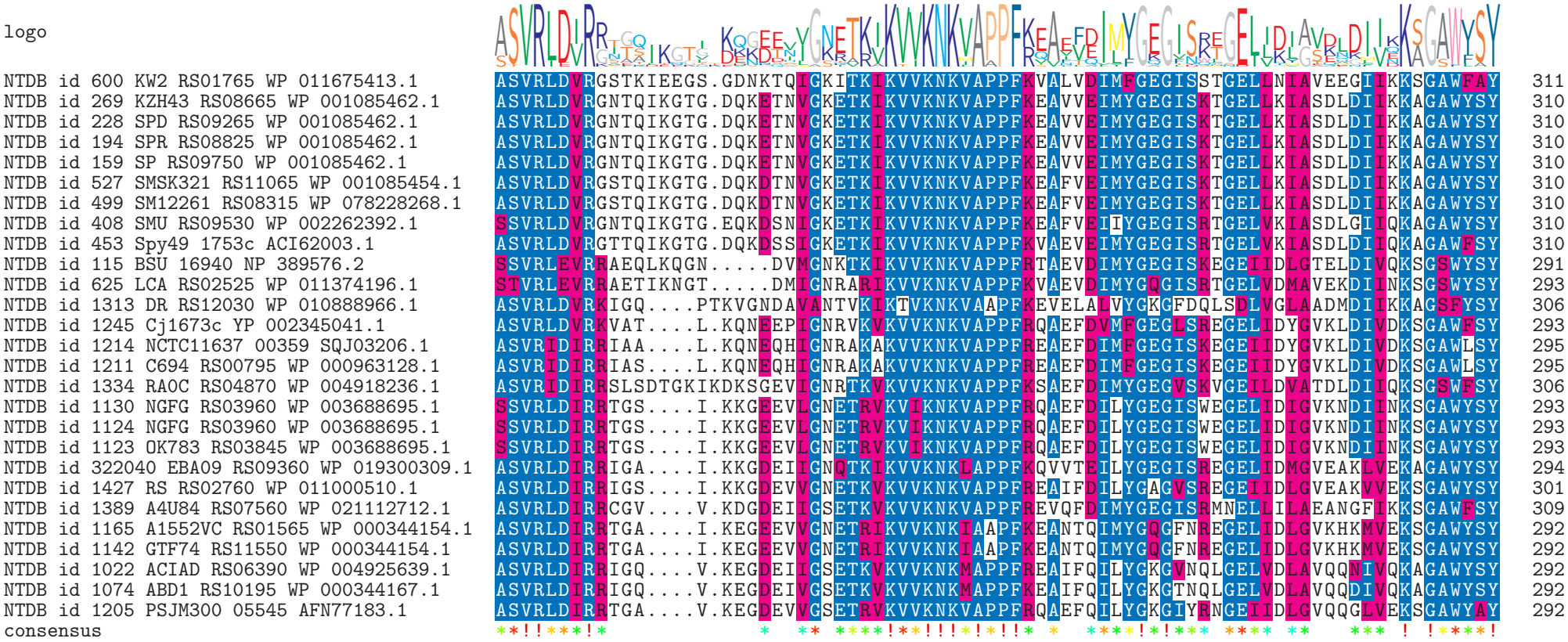



```
NTDB id 600 KW2 RS01765 WP 011675413.1       MATKKK.....TNFDDITKKYGAERDKALADALALIEKDFGKGSLMRLGEA.ANQKVSVVSSGSLALDIALGAGGYPKGR  74
NTDB id 269 KZH43 RS08665 WP 001085462.1     .MAKKP.....KKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR  73
NTDB id 228 SPD RS09265 WP 001085462.1       .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 408 SMU RS09530 WP 002262392.1       .MAKRI.....KKTEEITKKFGDERKKALDDALKNIEKDFGKGAVMRLGER.AEQKVQVMSSGSLALDIALGAGGYPKGR  73
NTDB id 453 Spy49 1753c ACI62003.1           .MAKKL.....KKNEEITKKFGDERRKALDDALKNIEKDFGKGAVMRLGER.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 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 322040 EBA09 RS09360 WP 019300309.1  ......................MDENKKRALSAALSQIEKQFGKGSVMRMGDR.VIEAVEVIPTGSLMLDIALGIGGLPKGR  59
NTDB id 1427 RS RS02760 WP 011000510.1       .........MEDGK..KAASMSAEKQKALAAALAQIEKQFGKGSIMKMGDA.EVEPVQVVSTGSLGLDVALGVGGLPRGR  68
NTDB id 1389 A4U84 RS07560 WP 021112712.1    .MAENKKSSKNNTV..VKQVEPEQKKQALEAALAQIEKQFGKGSIMKLGQT.EQLDIESVSTGSLGLDLALGIGGLPMGR  76
NTDB id 1165 A1552VC RS01565 WP 000344154.1  ......................MDENKQKALAAALGQIEKQFGKGSIMRLGDN.RAMDVETISTGSLSLDIALGAGGLPMGR  59
NTDB id 1142 GTF74 RS11550 WP 000344154.1    ......................MDENKQKALAAALGQIEKQFGKGSIMRLGDN.RAMDVETISTGSLSLDIALGAGGLPMGR  59
NTDB id 1022 ACIAD RS06390 WP 004925639.1    ......................MDDNKSKALQAALSQIEKQFGKNTVMRLGDN.TVQAVEAVSTGSLTLDIALGIGGLPKGR  59
NTDB id 1074 ABD1 RS10195 WP 000344167.1     ......................MDENKSKALQAALSQIEKQFGKNTVMRLGDN.TVQAVEAVSTGSLTLDIALGIGGLPKGR  59
NTDB id 1205 PSJM300 05545 AFN77183.1        ......................MDENKKRALAAALGQIEKQFGKGAVMRMGDH.DRQAIPSISTGSLGLDIALGIGGLPKGR  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 408 SMU RS09530 WP 002262392.1 IVEIYGPESSGKTTVALHAVAQAQKDGGIAAFIDAEHALDPAYAAALGVNIDELLLSQPDSGEQGLEIAGKLIDSGAVDL 153
NTDB id 453 Spy49 1753c ACI62003.1 IIEIYGPESSGKTTVALHAVAQAQKEGGIAAFIDAEHALDPAYAAALGVNIDELLLAQPDSGEQGLEIAGKLIDSGAVDL 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 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 322040 EBA09 RS09360 WP 019300309.1 VVEIYGPESSGKTTLTLQAIAQCQKLGGTAAFIDAEHALDPIYAAKLGVNVDDLLLSQPDTGEQALEIADMLVRSSSVDI 139
NTDB id 1427 RS RS02760 WP 011000510.1 VVEIYGPESSGKTTLTLQVVAEMQKLGGTCAFIDAEHALDVTYADKLGVKVPDLLISQPDTGEQALEIADALVRSGSVDL 148
NTDB id 1389 A4U84 RS07560 WP 021112712.1 IVEIYGPESSGKTTLTLSLIAQAQKGNKTCAFIDAEHALDPVYARNLGVNTDELLISQPDNGEQALEICDALVRSGAVDV 156
NTDB id 1165 A1552VC RS01565 WP 000344154.1 IVEIFGPESSGKTTLTLELIAAAQREGKTCAFIDAEHALDPVYAKKLGVNIDELLVSQPDTGEQALEICDALARSGAVDV 139
NTDB id 1142 GTF74 RS11550 WP 000344154.1 IVEIFGPESSGKTTLTLELIAAAQREGKTCAFIDAEHALDPVYAKKLGVNIDELLVSQPDTGEQALEICDALARSGAVDV 139
NTDB id 1022 ACIAD RS06390 WP 004925639.1 IVEIYGPESSGKTTMTLQAIAQCQKAGGTCAFIDAEHALDPQYARKLGVDIDNLLVSQPDHGEQALEIADMLVRSGAIDL 139
NTDB id 1074 ABD1 RS10195 WP 000344167.1 IIEIYGPESSGKTTMTLQAIAQCQKSGGTCAFIDAEHALDPQYARKLGVDIDNLLVSQPDNGEQALEIADMLVRSGAIDL 139
NTDB id 1205 PSJM300 05545 AFN77183.1 IVEIYGPESSGKTTLTLSVIAAAQRMGSTCAFVDAEHALDPDYAGKLGVNVDDLLVSQPDTGEQALEITDMLVRSNAVDV 139
consensus


logo
NTDB id 600 KW2 RS01765 WP 011675413.1 VVIDSVAALVPKAEIDGEIGDSSVGLQARMMSQAMRKLAGHINKTKTTAIFINQLREKVGVMFG..SPETTPGGRALKFY 232
NTDB id 269 KZH43 RS08665 WP 001085462.1 VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVMFG..NPETTPGGRALKFY 231
NTDB id 228 SPD RS09265 WP 001085462.1 VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVMFG..NPETTPGGRALKFY 231
NTDB id 194 SPR RS08825 WP 001085462.1 VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVMFG..NPETTPGGRALKFY 231
NTDB id 159 SP RS09750 WP 001085462.1 VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVMFG..NPETTPGGRALKFY 231
NTDB id 527 SMSK321 RS11065 WP 001085454.1 VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVMFG..NPETTPGGRALKFY 231
NTDB id 499 SM12261 RS08315 WP 078228268.1 VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLGASINKTKTIAIFINQLREKVGVMFG..NPETTPGGRALKFY 231
NTDB id 408 SMU RS09530 WP 002262392.1 VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLSASINKTKTIAIFINQLREKVGIMFG..NPETTPGGRALKFY 231
NTDB id 453 Spy49 1753c ACI62003.1 VVVDSVAALVPRAEIDGDIGDSHVGLQARMMSQAMRKLSASINKTKTIAIFINQLREKVGVMFG..NPETTPGGRALKFY 231
NTDB id 115 BSU 16940 NP 389576.2 VVVDSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLSGAINKSKTIAIFINQIREKVGVMFG..NPETTPGGRALKFY 216
NTDB id 625 LCA RS02525 WP 011374196.1 LVVDSVAALVPRAEIEGEMGDAHVGLQARLMSQALRKLSGTINKTKTIALFINQIREKVGVMFG..NPEVTPGGRALKFY 218
NTDB id 1313 DR RS12030 WP 010888966.1 VVVDSVAALTPRAEIEGDMGDSLPGLQARLMSQALRKLTAILSKTGTAAIFINQVREKIGVMYG..NPETTTGGRALKFY 230
NTDB id 1245 Cj1673c YP 002345041.1 IVVDSVAALTPKAEIEGDMGDQHVGLQARLMSQALRKLTGIVHKMNTTVIFINQIRMKIGAMG.YGTPETTTGGNALKFY 218
NTDB id 1214 NCTC11637 00359 SQJ03206.1 VVVDSVAALTPKAEIDGDMGDQHVGLQARLMSHALRKITGVLHKMNTTLIFINQIRMKIGMMG.YGSPETTTGGNALKFY 220
NTDB id 1211 C694 RS00795 WP 000963128.1 VVVDSVAALTPKAEIDGDMGDQHVGLQARLMSHALRKITGVLHKMNTTLIFINQIRMKIGMMG.YGSPETTTGGNALKFY 220
NTDB id 1334 RA0C RS04870 WP 004918236.1 VVVDSVAALTPKAEIDGDMGDSKMGLHARLMSQALRKLTSSISKTKCTVIFINQLRDKIGVMFG..SPETTTGGNALKFY 226
NTDB id 1130 NGFG RS03960 WP 003688695.1 VVVDSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLTGHIKKTNTLVVFINQIRMKIGVMFG..SPETTTGGNALKFY 218
NTDB id 1124 NGFG RS03960 WP 003688695.1 VVVDSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLTGHIKKTNTLVVFINQIRMKIGVMFG..SPETTTGGNALKFY 218
NTDB id 1123 OK783 RS03845 WP 003688695.1 VVVDSVAALVPKAEIEGDMGDSHVGLQARLMSQALRKLTGHIKKTNTLVVFINQIRMKIGVMFG..SPETTTGGNALKFY 218
NTDB id 322040 EBA09 RS09360 WP 019300309.1 VVIDSVAALTPKAEIEGEMGDQLPGLQARLMSQALRKLTGNIKRSNTLVVFINQLRMKIGVMMPGQSPEVTTGGNALKFY 219
NTDB id 1427 RS RS02760 WP 011000510.1 IVIDSVAALVPKAEIEGEMGDALPGLQARLMSQALRKLTGTIKRTNCLVIFINQIRMKIGVMFG..SPETTTGGNALKFY 226
NTDB id 1389 A4U84 RS07560 WP 021112712.1 IIVDSVAALTPKAEIEGDMGDSHMGLQARLMSQALRKLTANIKNTNCLVVFINQIRMKIGVMFG..NPETTTGGNALKFY 234
NTDB id 1165 A1552VC RS01565 WP 000344154.1 IVVDSVAALTPKAEIEGEMGDSHMGLQARMLSQAMRKLTGNLKQSNCMCIFINQIRMKIGVMFG..NPETTTGGNALKFY 217
NTDB id 1142 GTF74 RS11550 WP 000344154.1 IVVDSVAALTPKAEIEGEMGDSHMGLQARMLSQAMRKLTGNLKQSNCMCIFINQIRMKIGVMFG..NPETTTGGNALKFY 217
NTDB id 1022 ACIAD RS06390 WP 004925639.1 IVVDSVAALTPKAEIEGEMGDSHMGLQARLMSQALRKITGNAKRSNCMVIFINQIRMKIGVMFG..SPETTTGGNALKFY 217
NTDB id 1074 ABD1 RS10195 WP 000344167.1 IVVDSVAALTPKAEIEGEMGDSHMGLQARLMSQALRKITGNAKRSNCMVIFINQIRMKIGVMFG..SPETTTGGNALKFY 217
NTDB id 1205 PSJM300 05545 AFN77183.1 IIVDSVAALVPKAEIEGEMGDAHVGLQARLMSQALRKITGNIKNANCLVIFINQIRMKIGVMFG..SPETTTGGNALKFY 217
consensus


logo
NTDB id 600 KW2 RS01765 WP 011675413.1 ASVRLDVRGSTKIEEGS.GDNKTQIGKITKIKVVKNKVAPPFKVALVDIMFGEGISSTGELLNIAVEEGIIKKSGAWFAY 311
NTDB id 269 KZH43 RS08665 WP 001085462.1 ASVRLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKEAVVEIMYGEGISKTGELLKIASDLDIIKKAGAWYSY 310
NTDB id 228 SPD RS09265 WP 001085462.1 ASVRLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKEAVVEIMYGEGISKTGELLKIASDLDIIKKAGAWYSY 310
NTDB id 194 SPR RS08825 WP 001085462.1 ASVRLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKEAVVEIMYGEGISKTGELLKIASDLDIIKKAGAWYSY 310
NTDB id 159 SP RS09750 WP 001085462.1 ASVRLDVRGNTQIKGTG.DQKETNVGKETKIKVVKNKVAPPFKEAVVEIMYGEGISKTGELLKIASDLDIIKKAGAWYSY 310
NTDB id 527 SMSK321 RS11065 WP 001085454.1 ASVRLDVRGSTQIKGTG.DQKDTNVGKETKIKVVKNKVAPPFKEAFVEIMYGEGISKTGELLKIASDLDIIKKAGAWYSY 310
NTDB id 499 SM12261 RS08315 WP 078228268.1 ASVRLDVRGSTQIKGTG.DQKDTNVGKETKIKVVKNKVAPPFKEAFVEIMYGEGISKTGELLKIASDLDIIKKAGAWYSY 310
NTDB id 408 SMU RS09530 WP 002262392.1 SSVRLDVRGNTQIKGTG.EQKDSNIGKETKIKVVKNKVAPPFKEAFVEIIYGEGISRTGELVKIASDLGIIQKAGAWYSY 310
NTDB id 453 Spy49 1753c ACI62003.1 ASVRLDVRGTTQIKGTG.DQKDSSIGKETKIKVVKNKVAPPFKVAEVEIMYGEGISRTGELVKIASDLDIIQKAGAWFSY 310
NTDB id 115 BSU 16940 NP 389576.2 SSVRLEVRRAEQLKQGN.....DVMGNKTKIKVVKNKVAPPFRTAEVDIMYGEGISKEGEIIDLGTELDIVQKSGSWYSY 291
NTDB id 625 LCA RS02525 WP 011374196.1 STVRLEVRRAETIKNGT.....DMIGNRARIKVVKNKVAPPFKVAEVDIMYGQGISRTGELVDMAVEKDIINKSGSWYSY 293
NTDB id 1313 DR RS12030 WP 010888966.1 ASVRLDVRKIGQ....PTKVGNDAVANTVKIKTVKNKVAAPFKEVELALVYGKGFDQLSDLVGLAADMDIIKKAGSFYSY 306
NTDB id 1245 Cj1673c YP 002345041.1 ASVRLDVRKVAT....L.KQNEEPIGNRVKVKVVKNKVAPPFRQAEFDVMFGEGLSREGELIDYGVKLDIVDKSGAWFSY 293
NTDB id 1214 NCTC11637 00359 SQJ03206.1 ASVRIDIRRIAA....L.KQNEQHIGNRAKAKVVKNKVAPPFREAEFDIMFGEGISKEGEIIDYGVKLDIVDKSGAWLSY 295
NTDB id 1211 C694 RS00795 WP 000963128.1 ASVRIDIRRIAS....L.KQNEQHIGNRAKAKVVKNKVAPPFREAEFDIMFGEGISKEGEIIDYGVKLDIVDKSGAWLSY 295
NTDB id 1334 RA0C RS04870 WP 004918236.1 ASVRIDIRRSLSDTGKIKDKSGEVIGNRTKVKVVKNKVAPPFKSAEFDIMYGEGVSKVGEILDVATDLDIIQKSGSWFSY 306
NTDB id 1130 NGFG RS03960 WP 003688695.1 SSVRLDIRRTGS....I.KKGEEVLGNETRVKVIKNKVAPPFRQAEFDILYGEGISWEGELIDIGVKNDIINKSGAWYSY 293
NTDB id 1124 NGFG RS03960 WP 003688695.1 SSVRLDIRRTGS....I.KKGEEVLGNETRVKVIKNKVAPPFRQAEFDILYGEGISWEGELIDIGVKNDIINKSGAWYSY 293
NTDB id 1123 OK783 RS03845 WP 003688695.1 SSVRLDIRRTGS....I.KKGEEVLGNETRVKVIKNKVAPPFRQAEFDILYGEGISWEGELIDIGVKNDIINKSGAWYSY 293
NTDB id 322040 EBA09 RS09360 WP 019300309.1 ASVRLDIRRIGA....I.KKGDEIIGNQTKIKVVKNKLAPPFKQVVTEILYGEGISREGELIDMGVEAKLVEKAGAWYSY 294
NTDB id 1427 RS RS02760 WP 011000510.1 ASVRLDIRRIGS....I.KKGDEVVGNETKVKVVKNKVAPPFREAIFDILYGAGVSREGEIIDLGVEAKVVEKSGAWYSY 301
NTDB id 1389 A4U84 RS07560 WP 021112712.1 ASVRLDIRRCGV....V.KDGDEIIGSETKVKVVKNKVAPPFREVQFDIMYGEGISRMNELLILAEANGFIKKSGAWFSY 309
NTDB id 1165 A1552VC RS01565 WP 000344154.1 ASVRLDIRRTGA....I.KEGEEVVGNETRIKVVKNKIAAPFKEANTQIMYGQGFNREGELIDLGVKHKMVEKSGAWYSY 292
NTDB id 1142 GTF74 RS11550 WP 000344154.1 ASVRLDIRRTGA....I.KEGEEVVGNETRIKVVKNKIAAPFKEANTQIMYGQGFNREGELIDLGVKHKMVEKSGAWYSY 292
NTDB id 1022 ACIAD RS06390 WP 004925639.1 ASVRLDIRRIGQ....V.KEGDEIIGSETKVKVVKNKMAPPFREAIFQILYGKGVNQLGELVDLAVQQNIVQKAGAWYSY 292
NTDB id 1074 ABD1 RS10195 WP 000344167.1 ASVRLDIRRIGQ....V.KEGDEIVGSETKVKVVKNKMAPPFKEAIFQILYGKGTNQLGELVDLAVQQDIVQKAGAWYSY 292
NTDB id 1205 PSJM300 05545 AFN77183.1 ASVRLDIRRTGA....V.KEGDEVVGSETRVKVVKNKVAPPFRQAEFQILYGKGIYRNGEIIDLGVQQGLVEKSGAWYAY 292
consensus




```
NTDB id 600 KW2 RS01765 WP 011675413.1       NDEKIGQGAEKAKNYLKEHQDVFDEIDHKVRAAHGLLDDSEVAETEEETTASKTKAKAKKEEKAVETEEIELELED....  387
NTDB id 269 KZH43 RS08665 WP 001085462.1     KDEKIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEI  384
NTDB id 228 SPD RS09265 WP 001085462.1       KDEKIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEI  384
NTDB id 194 SPR RS08825 WP 001085462.1       KDEKIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEI  384
NTDB id 159 SP RS09750 WP 001085462.1        KDEKIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEI  384
NTDB id 527 SMSK321 RS11065 WP 001085454.1   KDEKIGQGSENAKKYLADNPEVFAEIDHQVRVQFGLIDGEEAAE....SKKDE....VAQVDS..VNEEVTLDLGDELEI  380
NTDB id 499 SM12261 RS08315 WP 078228268.1   KDEKIGQGSENAKKYLADNPEIFDEIDHQVRVQFGLIDGEEIAE....SKKDE....AAQVDS..VNEEVTLDLGDELEI  380
NTDB id 408 SMU RS09530 WP 002262392.1       NGEKIGQGSENAKKFLADNPEIFDDIDHKVRVQYGLIEEDNTEEKQSSKEK.......ETDEK..ADKNLVLELDDTIEL  381
NTDB id 453 Spy49 1753c ACI62003.1           NGEKIGQGSENAKRYLADHPQLFDEIDRKVRVKFGLLEESEEESAMAVASE.......E.......TDDLALDLDNGIEI  376
NTDB id 115 BSU 16940 NP 389576.2            EEERLGQGRENAKQFLKENKDIMLMIQEQIREHYGLDNNGVVQQQAEETQEEL.EFE.E.....................  348
NTDB id 625 LCA RS02525 WP 011374196.1       GSERIGQGRENAKNYLADHEDVEDEVRLKVRAAYGISDVPEEDLPTTEDE.QI.NILPDDST.....EE...........  355
NTDB id 1313 DR RS12030 WP 010888966.1       GDERIGQGKEKTIAYIAERPEMEQEIRDRVMAAIRAGNAGEAPALAPAPAAPEAAEA.....................  363
NTDB id 1245 Cj1673c YP 002345041.1          KDKKLGQGRENSKAFLKENPEIADEITKAIQNSMGIEGMI.....SGSEDDEGEE.......................  343
NTDB id 1214 NCTC11637 00359 SQJ03206.1      QDKKLGQGRENAKALLKEDKALADEITLKIKESIGSNEEI.....MPLPDEPLEEME.....................  347
NTDB id 1211 C694 RS00795 WP 000963128.1     QDKKLGQGRENAKALLKEDKALADEITLKIKESIGSNEEI.....MPLPDEPLEEME.....................  347
NTDB id 1334 RA0C RS04870 WP 004918236.1     QDTKLGQGRDTVKELIKDNPELAEELEAKIREKLQAK.........................................  343
NTDB id 1130 NGFG RS03960 WP 003688695.1     NGAKIGQGKDNVRVWLKENPEISDEIDAKIRALNGVEMHI.....TEGTQDETDGERP........EE...........  348
NTDB id 1124 NGFG RS03960 WP 003688695.1     NGAKIGQGKDNVRVWLKENPEISDEIDAKIRALNGVEMHI.....TEGTQDETDGERP........EE...........  348
NTDB id 1123 OK783 RS03845 WP 003688695.1    NGAKIGQGKDNVRVWLKENPEISDEIDAKIRALNGVEMHI.....TEGTQDETDGERP........EE...........  348
NTDB id 322040 EBA09 RS09360 WP 019300309.1  GDERIGQGKDNARTYLRDNPQVAVRLEAELREKFQPAEAP.....REAGDDEEKE.......................  344
NTDB id 1427 RS RS02760 WP 011000510.1       NGERIGQGRDNCREFLRENAELAREIENKVREHLGVTPMG.....AVTLAEEVEED......................  352
NTDB id 1389 A4U84 RS07560 WP 021112712.1    DGTKIGQGKNNAVKWLKENPEIADKLEQEIRNTLASNPNS.....VLKATASDSNDESDVE..EFSEEEL.........  372
NTDB id 1165 A1552VC RS01565 WP 000344154.1  NGDKIGQGKANACKYLKENPEIAKTLDKKLREMLLNPENM.....QLIAETSSAADDVEFG..AVPEEF.........  354
NTDB id 1142 GTF74 RS11550 WP 000344154.1    NGDKIGQGKANACKYLKENPEIAKTLDKKLREMLLNPENM.....QLIAETSSAADDVEFG..AVPEEF.........  354
NTDB id 1022 ACIAD RS06390 WP 004925639.1    QGNKIGQGKNNVIRYLEENPQISTEIEAVIREQLLTKASD.....QTAA.HDETEEEPDLL....ES...........  349
NTDB id 1074 ABD1 RS10195 WP 000344167.1     QGNKIGQGKNNVIRYFEENNQIAEEIERNIREQLLTTGTN.....GAVQ.I.EDEEEPDLL....LES...........  349
NTDB id 1205 PSJM300 05545 AFN77183.1        KGSKIGQGKANAAKYLEENPEIGQEIEQQIRAKLLVTSAN.....TKATPVAEDLADADI..................  347
consensus                                       **!!!***** ** ***** **** **   **
```

logo

```
                                          ELEE
NTDB id 600 KW2 RS01765 WP 011675413.1       ....   387
NTDB id 269 KZH43 RS08665 WP 001085462.1     EIEE   388
NTDB id 228 SPD RS09265 WP 001085462.1       EIEE   388
NTDB id 194 SPR RS08825 WP 001085462.1       EIEE   388
NTDB id 159 SP RS09750 WP 001085462.1        EIEE   388
NTDB id 527 SMSK321 RS11065 WP 001085454.1   EIEE   384
NTDB id 499 SM12261 RS08315 WP 078228268.1   EIEE   384
NTDB id 408 SMU RS09530 WP 002262392.1       ED..   383
NTDB id 453 Spy49 1753c ACI62003.1           ED..   378
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 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 322040 EBA09 RS09360 WP 019300309.1  ....   344
NTDB id 1427 RS RS02760 WP 011000510.1       ....   352
NTDB id 1389 A4U84 RS07560 WP 021112712.1    ....   372
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
```

X non conserved
X similar
X $\geq$ 50% conserved