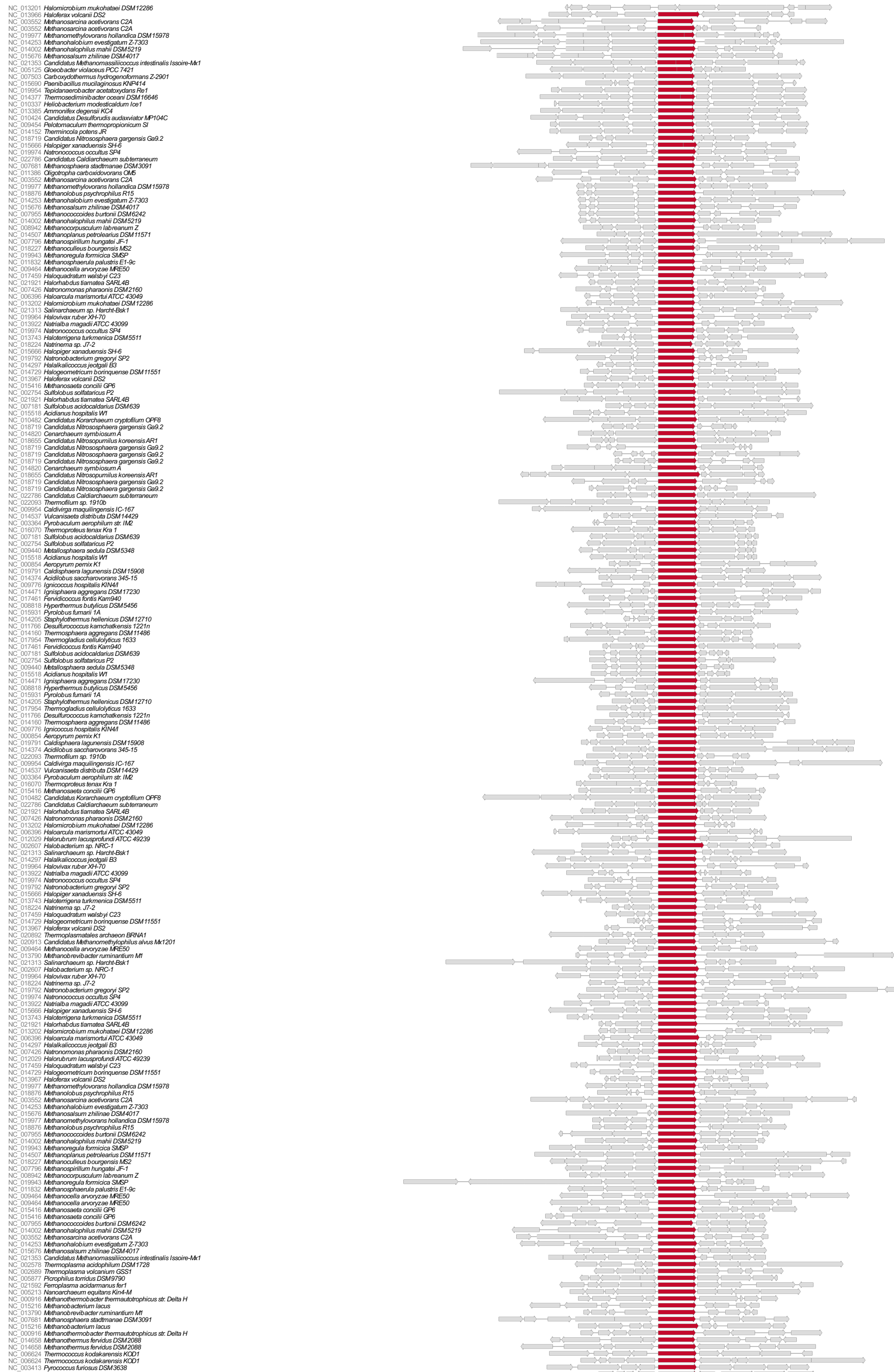
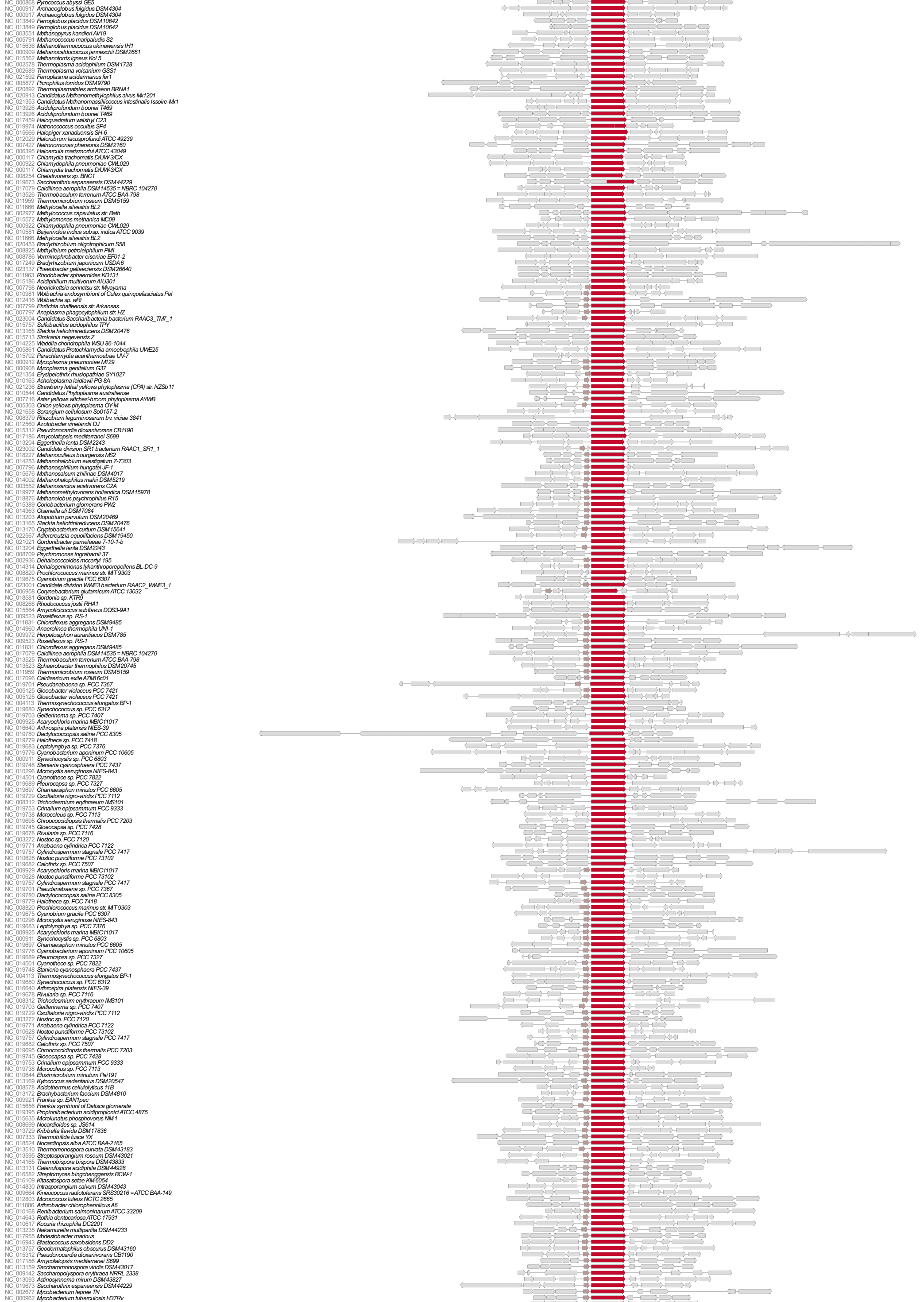
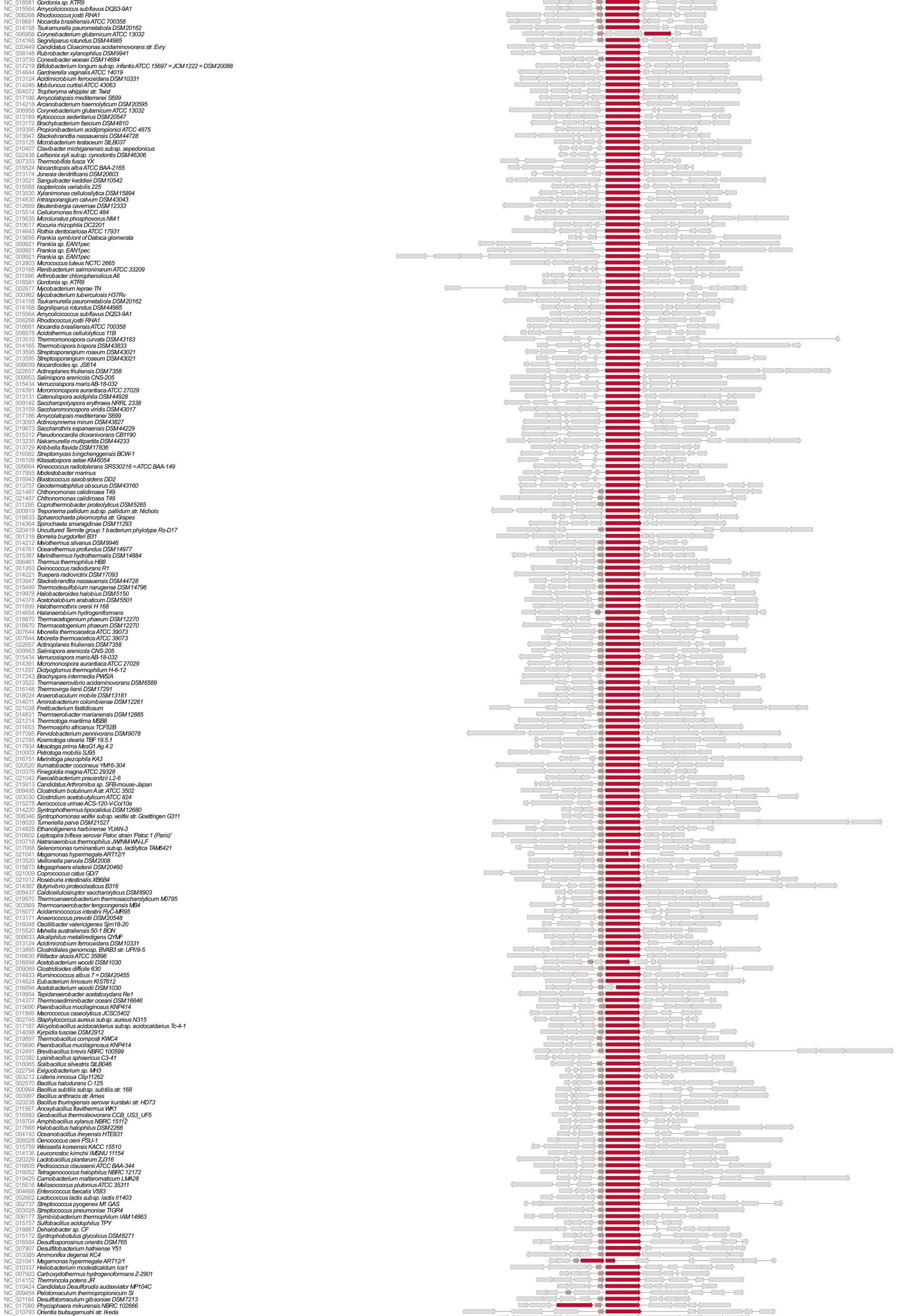
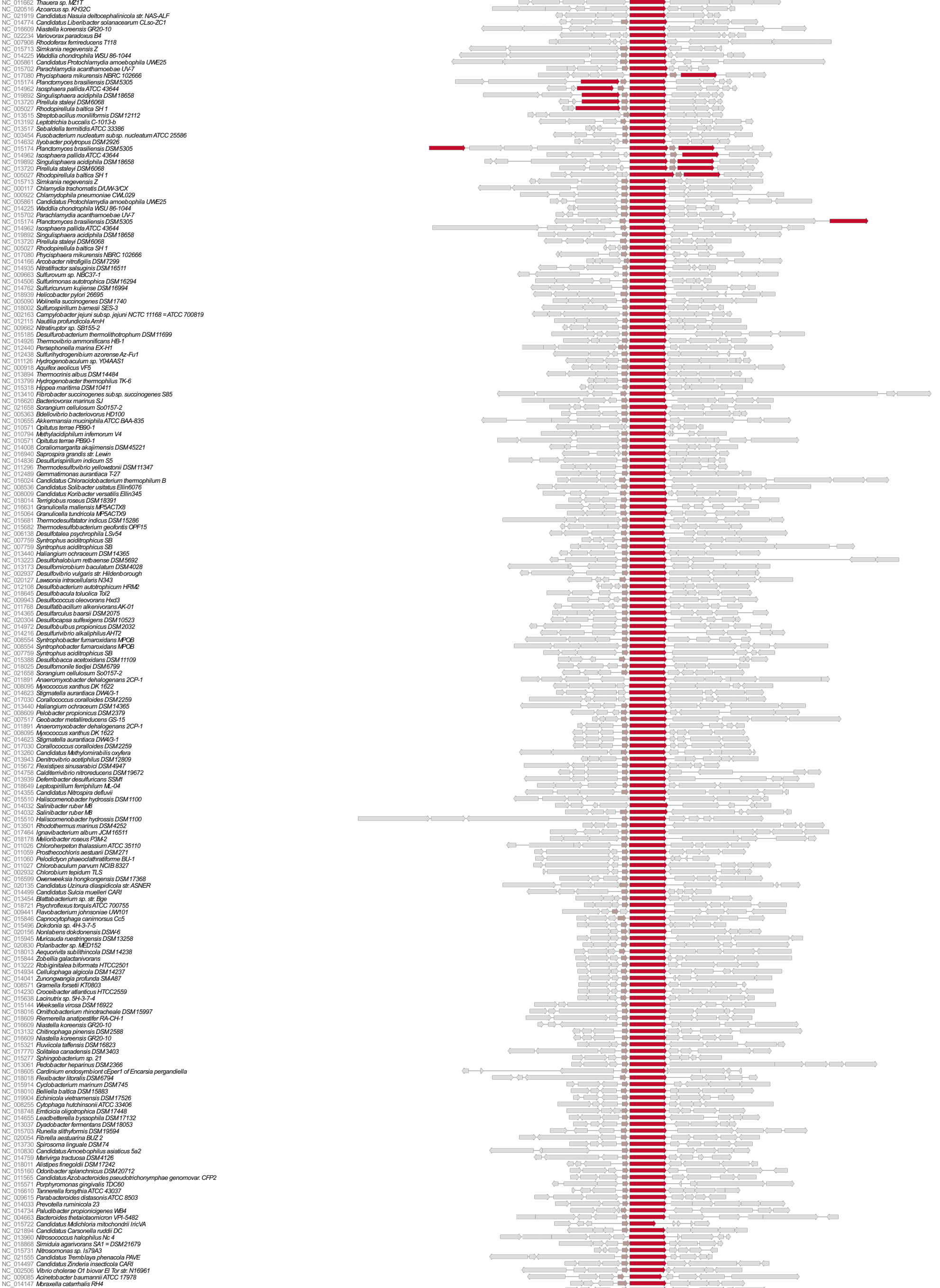
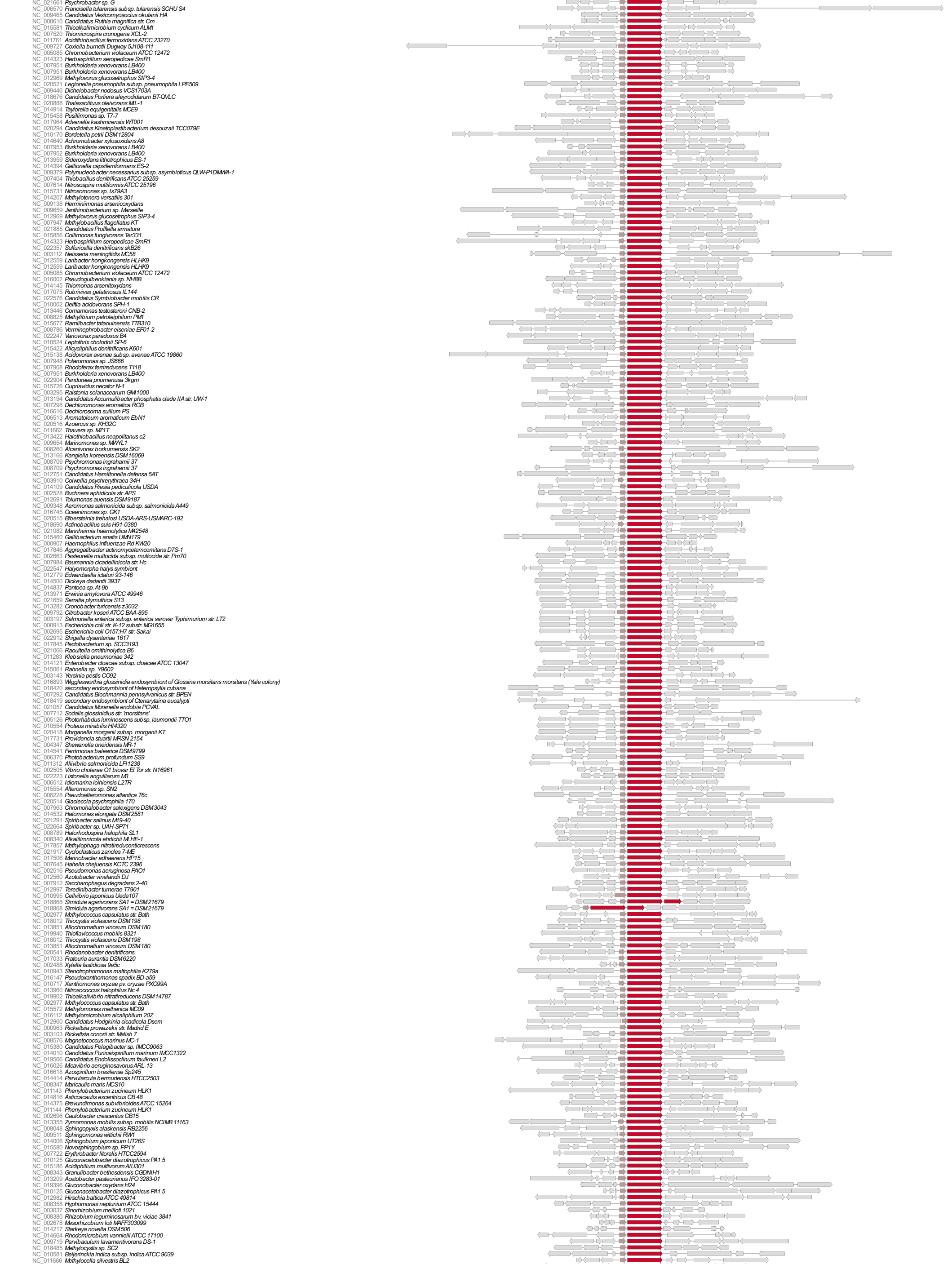

NC_013201 Halomicrobium mukohataei DSM12286
NC_013966 Haloferax volcanii DS2
NC_003552 Methanosarcina acetivorans C2A
NC_003552 Methanosarcina acetivorans C2A
NC_019977 Methanomethylovorans hollandica DSM15978
NC_014253 Methanohalobium evestigatum Z-7303
NC_014002 Methanohalophilus mahii DSM5219
NC_015676 Methanosalsum zhilinae DSM4017
NC_021353 Candidatus Methanomassiliicoccus intestinalis Issoire-Mx1
NC_005125 Gloeobacter violaceus PCC 7421
NC_007503 Carboxydothermus hydrogenoformans Z-2901
NC_015690 Paenibacillus mucilaginosus KNP414
NC_019954 Tepidanaerobacter acetatoxydans Re1
NC_014377 Thermosediminibacter oceani DSM16646
NC_010337 Heliobacterium modesticaldum Ice1
NC_013385 Ammonifex degensii KC4
NC_010424 Candidatus Desulforudis audaxviator MP104C
NC_009454 Pelotomaculum thermopropionicum SI
NC_014152 Thermincola potens JR
NC_018719 Candidatus Nitrososphaera gargensis Ga9.2
NC_015666 Halopiger xanaduensis SH-6
NC_019974 Natronococcus occultus SP4
NC_022786 Candidatus Caldiarchaeum subterraneum
NC_007681 Methanosphaera stadtmanae DSM3091
NC_011386 Oligotropha carboxidovorans OM5
NC_003552 Methanosarcina acetivorans C2A
NC_019977 Methanomethylovorans hollandica DSM15978
NC_018876 Methanolobus psychrophilus R15
NC_014253 Methanohalobium evestigatum Z-7303
NC_015676 Methanosalsum zhilinae DSM4017
NC_007955 Methanococcoides burtonii DSM6242
NC_014002 Methanohalophilus mahii DSM5219
NC_008942 Methanocorpusculum labreanum Z
NC_014507 Methanoplanus petrolearius DSM11571
NC_007796 Methanospirillum hungatei JF-1
NC_018227 Methanoculleus bourgensis MS2
NC_019943 Methanoregula formicica SMSP
NC_011832 Methanosphaerula palustris E1-9c
NC_009464 Methanocella arvoryzae MRE50
NC_017459 Haloquadratum walsbyi C23
NC_021921 Halorhabdus tiamatea SARL4B
NC_007426 Natronomonas pharaonis DSM2160
NC_006396 Haloarcula marismortui ATCC 43049
NC_013202 Halomicrobium mukohataei DSM12286
NC_021313 Salinarchaeum sp. Harcht-Bsk1
NC_019964 Halovivax ruber XH-70
NC_013922 Natrialba magadii ATCC 43099
NC_019974 Natronococcus occultus SP4
NC_013743 Haloterrigena turkmenica DSM5511
NC_018224 Natrinema sp. J7-2
NC_015666 Halopiger xanaduensis SH-6
NC_019792 Natronobacterium gregoryi SP2
NC_014297 Halalkalicoccus jeotgali B3
NC_014729 Halogeometricum borinquense DSM11551
NC_013967 Haloferax volcanii DS2
NC_015416 Methanosaeta concilii GP6
NC_002754 Sulfolobus solfataricus P2
NC_021921 Halorhabdus tiamatea SARL4B
NC_007181 Sulfolobus acidocaldarius DSM639
NC_015518 Acidianus hospitalis W1
NC_010482 Candidatus Korarchaeum cryptofilum OPF8
NC_018719 Candidatus Nitrososphaera gargensis Ga9.2
NC_014820 Cenarchaeum symbiosum A
NC_018655 Candidatus Nitrosopumilus koreensis AR1
NC_018719 Candidatus Nitrososphaera gargensis Ga9.2
NC_018719 Candidatus Nitrososphaera gargensis Ga9.2
NC_018719 Candidatus Nitrososphaera gargensis Ga9.2
NC_014820 Cenarchaeum symbiosum A
NC_018655 Candidatus Nitrosopumilus koreensis AR1
NC_018719 Candidatus Nitrososphaera gargensis Ga9.2
NC_018719 Candidatus Nitrososphaera gargensis Ga9.2
NC_022786 Candidatus Caldiarchaeum subterraneum
NC_022093 Thermofilum sp. 1910b
NC_009954 Caldivirga maquilingensis IC-167
NC_014537 Vulcanisaeta distributa DSM14429
NC_003364 Pyrobaculum aerophilum str. IM2
NC_016070 Thermoproteus tenax Kra 1
NC_007181 Sulfolobus acidocaldarius DSM639
NC_002754 Sulfolobus solfataricus P2
NC_009440 Metallosphaera sedula DSM5348
NC_015518 Acidianus hospitalis W1
NC_014471 Ignisphaera aggregans DSM17230
NC_008818 Hyperthermus butylicus DSM5456
NC_015931 Pyrolobus fumarii 1A
NC_014205 Staphylothermus hellenicus DSM12710
NC_017954 Thermogladius cellulolyticus 1633
NC_011766 Desulfurococcus kamchatkensis 1221n
NC_014160 Thermosphaera aggregans DSM11486
NC_009776 Ignicoccus hospitalis KIN4/I
NC_000854 Aeropyrum pernix K1
NC_019791 Caldisphaera lagunensis DSM15908
NC_014374 Acidilobus saccharovorans 345-15
NC_017461 Fervidicoccus fontis Kam940
NC_008818 Hyperthermus butylicus DSM5456
NC_015931 Pyrolobus fumarii 1A
NC_014205 Staphylothermus hellenicus DSM12710
NC_017954 Thermogladius cellulolyticus 1633
NC_011766 Desulfurococcus kamchatkensis 1221n
NC_014160 Thermosphaera aggregans DSM11486
NC_009776 Ignicoccus hospitalis KIN4/I
NC_000854 Aeropyrum pernix K1
NC_019791 Caldisphaera lagunensis DSM15908
NC_014374 Acidilobus saccharovorans 345-15
NC_022093 Thermofilum sp. 1910b
NC_009954 Caldivirga maquilingensis IC-167
NC_014537 Vulcanisaeta distributa DSM14429
NC_003364 Pyrobaculum aerophilum str. IM2
NC_016070 Thermoproteus tenax Kra 1
NC_015416 Methanosaeta concilii GP6
NC_010482 Candidatus Korarchaeum cryptofilum OPF8
NC_022786 Candidatus Caldiarchaeum subterraneum
NC_021921 Halorhabdus tiamatea SARL4B
NC_007426 Natronomonas pharaonis DSM2160
NC_013202 Halomicrobium mukohataei DSM12286
NC_006396 Haloarcula marismortui ATCC 43049
NC_012029 Halorubrum lacusprofundi ATCC 49239
NC_002607 Halobacterium sp. NRC-1
NC_021313 Salinarchaeum sp. Harcht-Bsk1
NC_014297 Halalkalicoccus jeotgali B3
NC_019964 Halovivax ruber XH-70
NC_013922 Natrialba magadii ATCC 43099
NC_019974 Natronococcus occultus SP4
NC_019792 Natronobacterium gregoryi SP2
NC_015666 Halopiger xanaduensis SH-6
NC_013743 Haloterrigena turkmenica DSM5511
NC_018224 Natrinema sp. J7-2
NC_017459 Haloquadratum walsbyi C23
NC_014729 Halogeometricum borinquense DSM11551
NC_013967 Haloferax volcanii DS2
NC_020892 Thermoplasmatales archaeon BRNA1
NC_020913 Candidatus Methanomethylophilus alvus Mx1201
NC_009464 Methanocella arvoryzae MRE50
NC_013790 Methanobrevibacter ruminantium M1
NC_021313 Salinarchaeum sp. Harcht-Bsk1
NC_002607 Halobacterium sp. NRC-1
NC_019964 Halovivax ruber XH-70
NC_018224 Natrinema sp. J7-2
NC_019792 Natronobacterium gregoryi SP2
NC_019974 Natronococcus occultus SP4
NC_013922 Natrialba magadii ATCC 43099
NC_015666 Halopiger xanaduensis SH-6
NC_013743 Haloterrigena turkmenica DSM5511
NC_021921 Halorhabdus tiamatea SARL4B
NC_013202 Halomicrobium mukohataei DSM12286
NC_006396 Haloarcula marismortui ATCC 43049
NC_014297 Halalkalicoccus jeotgali B3
NC_007426 Natronomonas pharaonis DSM2160
NC_012029 Halorubrum lacusprofundi ATCC 49239
NC_017459 Haloquadratum walsbyi C23
NC_014729 Halogeometricum borinquense DSM11551
NC_013967 Haloferax volcanii DS2
NC_019977 Methanomethylovorans hollandica DSM15978
NC_018876 Methanolobus psychrophilus R15
NC_003552 Methanosarcina acetivorans C2A
NC_014253 Methanohalobium evestigatum Z-7303
NC_015676 Methanosalsum zhilinae DSM4017
NC_019977 Methanomethylovorans hollandica DSM15978
NC_018876 Methanolobus psychrophilus R15
NC_007955 Methanococcoides burtonii DSM6242
NC_014002 Methanohalophilus mahii DSM5219
NC_019943 Methanoregula formicica SMSP
NC_014507 Methanoplanus petrolearius DSM11571
NC_018227 Methanoculleus bourgensis MS2
NC_007796 Methanospirillum hungatei JF-1
NC_008942 Methanocorpusculum labreanum Z
NC_019943 Methanoregula formicica SMSP
NC_011832 Methanosphaerula palustris E1-9c
NC_009464 Methanocella arvoryzae MRE50
NC_009464 Methanocella arvoryzae MRE50
NC_015416 Methanosaeta concilii GP6
NC_015416 Methanosaeta concilii GP6
NC_007955 Methanococcoides burtonii DSM6242
NC_014002 Methanohalophilus mahii DSM5219
NC_003552 Methanosarcina acetivorans C2A
NC_014253 Methanohalobium evestigatum Z-7303
NC_015676 Methanosalsum zhilinae DSM4017
NC_021353 Candidatus Methanomassiliicoccus intestinalis Issoire-Mx1
NC_002578 Thermoplasma acidophilum DSM1728
NC_002689 Thermoplasma volcanium GSS1
NC_005877 Picrophilus torridus DSM9790
NC_021592 Ferroplasma acidarmanus fer1
NC_005213 Nanoarchaeum equitans Kin4-M
NC_000916 Methanothermobacter thermautotrophicus str. Delta H
NC_015216 Methanobacterium lacus
NC_013790 Methanobrevibacter ruminantium M1
NC_007681 Methanosphaera stadtmanae DSM3091
NC_015216 Methanobacterium lacus
NC_000916 Methanothermobacter thermautotrophicus str. Delta H
NC_014658 Methanothermus fervidus DSM2088
NC_014658 Methanothermus fervidus DSM2088
NC_006624 Thermococcus kodakarensis KOD1
NC_006624 Thermococcus kodakarensis KOD1
NC_003413 Pyrococcus furiosus DSM3638

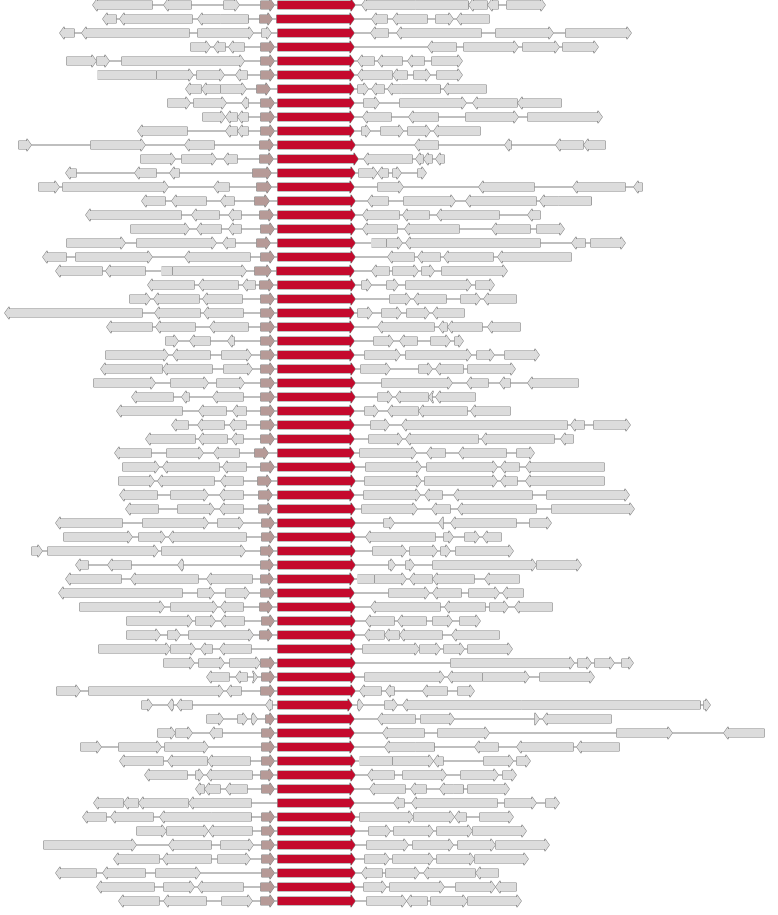

NC_000868 Pyrococcus abyssi GE5
NC_000917 Archaeoglobus fulgidus DSM 4304
NC_000917 Archaeoglobus fulgidus DSM 4304
NC_013849 Ferroglobus placidus DSM 10642
NC_013849 Ferroglobus placidus DSM 10642
NC_003551 Methanopyrus kandleri AV19
NC_005791 Methanococcus maripaludis S2
NC_015636 Methanothermococcus okinawensis IH1
NC_000909 Methanocaldococcus jannaschii DSM 2661
NC_015562 Methanotorris igneus Kol 5
NC_002578 Thermoplasma acidophilum DSM 1728
NC_002689 Thermoplasma volcanium GSS1
NC_021592 Ferroplasma acidarmanus fer1
NC_005877 Picrophilus torridus DSM 9790
NC_020892 Thermoplasmatales archaeon BRNA1
NC_020913 Candidatus Methanomethylophilus alvus Mx1201
NC_021353 Candidatus Methanomassiliicoccus intestinalis Issoire-Mx1
NC_013926 Aciduliprofundum boonei T469
NC_013926 Aciduliprofundum boonei T469
NC_017459 Haloquadratum walsbyi C23
NC_019974 Natronococcus occultus SP4
NC_015666 Halopiger xanaduensis SH-6
NC_012029 Halorubrum lacusprofundi ATCC 49239
NC_007427 Natronomonas pharaonis DSM 2160
NC_006395 Haloarcula marismortui ATCC 43049
NC_000117 Chlamydia trachomatis D/UW-3/CX
NC_000922 Chlamydophila pneumoniae CWL029
NC_000117 Chlamydia trachomatis D/UW-3/CX
NC_008254 Chelativorans sp. BNC1
NC_019673 Saccharothrix espanaensis DSM 44229
NC_017079 Caldilinea aerophila DSM 14535 = NBRC 104270
NC_013526 Thermobaculum terrenum ATCC BAA-798
NC_011959 Thermomicrobium roseum DSM 5159
NC_011666 Methylocella silvestris BL2
NC_002977 Methylococcus capsulatus str. Bath
NC_015572 Methylomonas methanica MC09
NC_000922 Chlamydophila pneumoniae CWL029
NC_010581 Beijerinckia indica subsp. indica ATCC 9039
NC_011666 Methylocella silvestris BL2
NC_020453 Bradyrhizobium oligotrophicum S58
NC_008825 Methylibium petroleiphilum PM1
NC_008786 Verminephrobacter eiseniae EF01-2
NC_017249 Bradyrhizobium japonicum USDA 6
NC_023137 Phaeobacter gallaeciensis DSM 26640
NC_011963 Rhodobacter sphaeroides KD131
NC_015186 Acidiphilium multivorum AIU301
NC_007798 Neorickettsia sennetsu str. Miyayama
NC_010981 Wolbachia endosymbiont of Culex quinquefasciatus Pel
NC_012416 Wolbachia sp. wRi
NC_007799 Ehrlichia chaffeensis str. Arkansas
NC_007797 Anaplasma phagocytophilum str. HZ
NC_023004 Candidatus Saccharibacteria bacterium RAAC3_TM7_1
NC_015757 Sulfobacillus acidophilus TPY
NC_013165 Slackia heliotrinireducens DSM 20476
NC_015713 Simkania negevensis Z
NC_014225 Waddlia chondrophila WSU 86-1044
NC_005861 Candidatus Protochlamydia amoebophila UWE25
NC_015702 Parachlamydia acanthamoebae UV-7
NC_000912 Mycoplasma pneumoniae M129
NC_000908 Mycoplasma genitalium G37
NC_021354 Erysipelothrix rhusiopathiae SY1027
NC_010163 Acholeplasma laidlawii PG-8A
NC_021236 Strawberry lethal yellows phytoplasma (CPA) str. NZSb11
NC_010544 Candidatus Phytoplasma australiense
NC_007716 Aster yellows witches'-broom phytoplasma AYWB
NC_005303 Onion yellows phytoplasma OY-M
NC_021658 Sorangium cellulosum So0157-2
NC_008379 Rhizobium leguminosarum bv. viciae 3841
NC_012560 Azotobacter vinelandii DJ
NC_015312 Pseudonocardia dioxanivorans CB1190
NC_017186 Amycolatopsis mediterranei S699
NC_013204 Eggerthella lenta DSM 2243
NC_023002 Candidate division SR1 bacterium RAAC1_SR1_1
NC_018227 Methanoculleus bourgensis MS2
NC_014253 Methanohalobium evestigatum Z-7303
NC_007796 Methanospirillum hungatei JF-1
NC_015676 Methanosalsum zhilinae DSM 4017
NC_014002 Methanohalophilus mahii DSM 5219
NC_003552 Methanosarcina acetivorans C2A
NC_019977 Methanomethylovorans hollandica DSM 15978
NC_018876 Methanolobus psychrophilus R15
NC_015389 Coriobacterium glomerans PW2
NC_014363 Olsenella uli DSM 7084
NC_013203 Atopobium parvulum DSM 20469
NC_013165 Slackia heliotrinireducens DSM 20476
NC_013170 Cryptobacterium curtum DSM 15641
NC_022567 Adlercreutzia equolifaciens DSM 19450
NC_021021 Gordonibacter pamelaeae 7-10-1-b
NC_013204 Eggerthella lenta DSM 2243
NC_008709 Psychromonas ingrahamii 37
NC_002936 Dehalococcoides mccartyi 195
NC_014314 Dehalogenimonas lykanthroporepellens BL-DC-9
NC_008820 Prochlorococcus marinus str. MIT 9303
NC_019675 Cyanobium gracile PCC 6307
NC_023001 Candidate division WWE3 bacterium RAAC2_WWE3_1
NC_006958 Corynebacterium glutamicum ATCC 13032
NC_018581 Gordonia sp. KTR9
NC_008268 Rhodococcus jostii RHA1
NC_015564 Amycolicicoccus subflavus DQS3-9A1
NC_009523 Roseiflexus sp. RS-1
NC_011831 Chloroflexus aggregans DSM 9485
NC_014960 Anaerolinea thermophila UNI-1
NC_009972 Herpetosiphon aurantiacus DSM 785
NC_009523 Roseiflexus sp. RS-1
NC_011831 Chloroflexus aggregans DSM 9485
NC_017079 Caldilinea aerophila DSM 14535 = NBRC 104270
NC_013525 Thermobaculum terrenum ATCC BAA-798
NC_013523 Sphaerobacter thermophilus DSM 20745
NC_011959 Thermomicrobium roseum DSM 5159
NC_017096 Caldisericum exile AZM16c01
NC_019701 Pseudanabaena sp. PCC 7367
NC_005125 Gloeobacter violaceus PCC 7421
NC_005125 Gloeobacter violaceus PCC 7421
NC_004113 Thermosynechococcus elongatus BP-1
NC_019680 Synechococcus sp. PCC 6312
NC_019703 Geitlerinema sp. PCC 7407
NC_009925 Acaryochloris marina MBIC11017
NC_016640 Arthrospira platensis NIES-39
NC_019780 Dactylococcopsis salina PCC 8305
NC_019779 Halothece sp. PCC 7418
NC_019683 Leptolyngbya sp. PCC 7376
NC_019776 Cyanobacterium aponinum PCC 10605
NC_000911 Synechocystis sp. PCC 6803
NC_019748 Stanieria cyanosphaera PCC 7437
NC_010296 Microcystis aeruginosa NIES-843
NC_014501 Cyanothece sp. PCC 7822
NC_019689 Pleurocapsa sp. PCC 7327
NC_019697 Chamaesiphon minutus PCC 6605
NC_019729 Oscillatoria nigro-viridis PCC 7112
NC_008312 Trichodesmium erythraeum IMS101
NC_019753 Crinalium epipsammum PCC 9333
NC_019738 Microcoleus sp. PCC 7113
NC_019695 Chroococcidiopsis thermalis PCC 7203
NC_019745 Gloeocapsa sp. PCC 7428
NC_019678 Rivularia sp. PCC 7116
NC_003272 Nostoc sp. PCC 7120
NC_019771 Anabaena cylindrica PCC 7122
NC_019757 Cylindrospermum stagnale PCC 7417
NC_010628 Nostoc punctiforme PCC 73102
NC_019682 Calothrix sp. PCC 7507
NC_009929 Acaryochloris marina MBIC11017
NC_010628 Nostoc punctiforme PCC 73102
NC_019757 Cylindrospermum stagnale PCC 7417
NC_019701 Pseudanabaena sp. PCC 7367
NC_019780 Dactylococcopsis salina PCC 8305
NC_019779 Halothece sp. PCC 7418
NC_008820 Prochlorococcus marinus str. MIT 9303
NC_019675 Cyanobium gracile PCC 6307
NC_010296 Microcystis aeruginosa NIES-843
NC_019683 Leptolyngbya sp. PCC 7376
NC_009925 Acaryochloris marina MBIC11017
NC_000911 Synechocystis sp. PCC 6803
NC_019697 Chamaesiphon minutus PCC 6605
NC_019776 Cyanobacterium aponinum PCC 10605
NC_019689 Pleurocapsa sp. PCC 7327
NC_014501 Cyanothece sp. PCC 7822
NC_019748 Stanieria cyanosphaera PCC 7437
NC_004113 Thermosynechococcus elongatus BP-1
NC_019680 Synechococcus sp. PCC 6312
NC_016640 Arthrospira platensis NIES-39
NC_019678 Rivularia sp. PCC 7116
NC_008312 Trichodesmium erythraeum IMS101
NC_019703 Geitlerinema sp. PCC 7407
NC_019729 Oscillatoria nigro-viridis PCC 7112
NC_003272 Nostoc sp. PCC 7120
NC_019771 Anabaena cylindrica PCC 7122
NC_010628 Nostoc punctiforme PCC 73102
NC_019757 Cylindrospermum stagnale PCC 7417
NC_019682 Calothrix sp. PCC 7507
NC_019695 Chroococcidiopsis thermalis PCC 7203
NC_019745 Gloeocapsa sp. PCC 7428
NC_019753 Crinalium epipsammum PCC 9333
NC_019738 Microcoleus sp. PCC 7113
NC_010644 Elusimicrobium minutum Pei191
NC_013169 Kytococcus sedentarius DSM 20547
NC_008578 Acidothermus cellulolyticus 11B
NC_013172 Brachybacterium faecium DSM 4810
NC_009921 Frankia sp. EAN1pec
NC_015656 Frankia symbiont of Datisca glomerata
NC_019395 Propionibacterium acidipropionici ATCC 4875
NC_015635 Microlunatus phosphovorus NM-1
NC_008699 Nocardioides sp. JS614
NC_013729 Kribbella flavida DSM 17836
NC_007333 Thermobifida fusca YX
NC_018524 Nocardiopsis alba ATCC BAA-2165
NC_013510 Thermomonospora curvata DSM 43183
NC_013595 Streptosporangium roseum DSM 43021
NC_014165 Thermobispora bispora DSM 43833
NC_013131 Catenulispora acidiphila DSM 44928
NC_016582 Streptomyces bingchenggensis BCW-1
NC_016109 Kitasatospora setae KM-6054
NC_014830 Intrasporangium calvum DSM 43043
NC_009664 Kineococcus radiotolerans SRS30216 = ATCC BAA-149
NC_012803 Micrococcus luteus NCTC 2665
NC_011886 Arthrobacter chlorophenolicus A6
NC_010168 Renibacterium salmoninarum ATCC 33209
NC_014643 Rothia dentocariosa ATCC 17931
NC_010617 Kocuria rhizophila DC2201
NC_013235 Nakamurella multipartita DSM 44233
NC_017955 Modestobacter marinus
NC_016943 Blastococcus saxobsidens DD2
NC_013757 Geodermatophilus obscurus DSM 43160
NC_015312 Pseudonocardia dioxanivorans CB1190
NC_017186 Amycolatopsis mediterranei S699
NC_013159 Saccharomonospora viridis DSM 43017
NC_009142 Saccharopolyspora erythraea NRRL 2338
NC_013093 Actinosynnema mirum DSM 43827
NC_019673 Saccharothrix espanaensis DSM 44229
NC_002677 Mycobacterium leprae TN
NC_000962 Mycobacterium tuberculosis H37Rv


NC_018581 Gordonia sp. KTR9
NC_015564 Amycolicicoccus subflavus DQS3-9A1
NC_008268 Rhodococcus jostii RHA1
NC_018681 Nocardia brasiliensis ATCC 700358
NC_014158 Tsukamurella paurometabola DSM 20162
NC_006958 Corynebacterium glutamicum ATCC 13032
NC_014168 Segniliparus rotundus DSM 44985
NC_020449 Candidatus Cloacimonas acidaminovorans str. Evry
NC_008148 Rubrobacter xylanophilus DSM 9941
NC_013739 Conexibacter woesei DSM 14684
NC_017219 Bifidobacterium longum subsp. infantis ATCC 15697 = JCM 1222 = DSM 20088
NC_014644 Gardnerella vaginalis ATCC 14019
NC_013124 Acidimicrobium ferrooxidans DSM 10331
NC_014246 Mobiluncus curtisii ATCC 43063
NC_004572 Tropheryma whipplei str. Twist
NC_017186 Amycolatopsis mediterranei S699
NC_014218 Arcanobacterium haemolyticum DSM 20595
NC_006958 Corynebacterium glutamicum ATCC 13032
NC_013169 Kytococcus sedentarius DSM 20547
NC_013172 Brachybacterium faecium DSM 4810
NC_019395 Propionibacterium acidipropionici ATCC 4875
NC_013947 Stackebrandtia nassauensis DSM 44728
NC_015125 Microbacterium testaceum StLB037
NC_010407 Clavibacter michiganensis subsp. sepedonicus
NC_022438 Leifsonia xyli subsp. cynodontis DSM 46306
NC_007333 Thermobifida fusca YX
NC_018524 Nocardiopsis alba ATCC BAA-2165
NC_013174 Jonesia denitrificans DSM 20603
NC_013521 Sanguibacter keddieii DSM 10542
NC_015588 Isoptericola variabilis 225
NC_013530 Xylanimonas cellulosilytica DSM 15894
NC_014830 Intrasporangium calvum DSM 43043
NC_012669 Beutenbergia cavernae DSM 12333
NC_015514 Cellulomonas fimi ATCC 484
NC_015635 Microlunatus phosphovorus NM-1
NC_010617 Kocuria rhizophila DC2201
NC_014643 Rothia dentocariosa ATCC 17931
NC_015656 Frankia symbiont of Datisca glomerata
NC_009921 Frankia sp. EAN1pec
NC_009921 Frankia sp. EAN1pec
NC_009921 Frankia sp. EAN1pec
NC_012803 Micrococcus luteus NCTC 2665
NC_010168 Renibacterium salmoninarum ATCC 33209
NC_011886 Arthrobacter chlorophenolicus A6
NC_018581 Gordonia sp. KTR9
NC_002677 Mycobacterium leprae TN
NC_000962 Mycobacterium tuberculosis H37Rv
NC_014158 Tsukamurella paurometabola DSM 20162
NC_014168 Segniliparus rotundus DSM 44985
NC_015564 Amycolicicoccus subflavus DQS3-9A1
NC_008268 Rhodococcus jostii RHA1
NC_018681 Nocardia brasiliensis ATCC 700358
NC_008578 Acidothermus cellulolyticus 11B
NC_013510 Thermomonospora curvata DSM 43183
NC_014165 Thermobispora bispora DSM 43833
NC_013595 Streptosporangium roseum DSM 43021
NC_013595 Streptosporangium roseum DSM 43021
NC_008699 Nocardioides sp. JS614
NC_022657 Actinoplanes friuliensis DSM 7358
NC_009953 Salinispora arenicola CNS-205
NC_015434 Verrucosispora maris AB-18-032
NC_014391 Micromonospora aurantiaca ATCC 27029
NC_013131 Catenulispora acidiphila DSM 44928
NC_009142 Saccharopolyspora erythraea NRRL 2338
NC_013159 Saccharomonospora viridis DSM 43017
NC_017186 Amycolatopsis mediterranei S699
NC_013093 Actinosynnema mirum DSM 43827
NC_019673 Saccharothrix espanaensis DSM 44229
NC_015312 Pseudonocardia dioxanivorans CB1190
NC_013235 Nakamurella multipartita DSM 44233
NC_013729 Kribbella flavida DSM 17836
NC_016582 Streptomyces bingchenggensis BCW-1
NC_016109 Kitasatospora setae KM-6054
NC_009664 Kineococcus radiotolerans SRS30216 = ATCC BAA-149
NC_017955 Modestobacter marinus
NC_016943 Blastococcus saxobsidens DD2
NC_013757 Geodermatophilus obscurus DSM 43160
NC_021487 Chthonomonas calidirosea T49
NC_021487 Chthonomonas calidirosea T49
NC_011295 Coprothermobacter proteolyticus DSM 5265
NC_000919 Treponema pallidum subsp. pallidum str. Nichols
NC_016633 Sphaerochaeta pleomorpha str. Grapes
NC_014364 Spirochaeta smaragdinae DSM 11293
NC_020419 Uncultured Termite group 1 bacterium phylotype Rs-D17
NC_001318 Borrelia burgdorferi B31
NC_014212 Meiothermus silvanus DSM 9946
NC_014761 Oceanithermus profundus DSM 14977
NC_015387 Marinithermus hydrothermalis DSM 14884
NC_006461 Thermus thermophilus HB8
NC_001263 Deinococcus radiodurans R1
NC_014221 Truepera radiovictrix DSM 17093
NC_013947 Stackebrandtia nassauensis DSM 44728
NC_015499 Thermodesulfobium narugense DSM 14796
NC_019978 Halobacteroides halobius DSM 5150
NC_014378 Acetohalobium arabaticum DSM 5501
NC_011899 Halothermothrix orenii H 168
NC_014654 Halanaerobium hydrogeniformans
NC_018870 Thermacetogenium phaeum DSM 12270
NC_018870 Thermacetogenium phaeum DSM 12270
NC_007644 Moorella thermoacetica ATCC 39073
NC_007644 Moorella thermoacetica ATCC 39073
NC_022657 Actinoplanes friuliensis DSM 7358
NC_009953 Salinispora arenicola CNS-205
NC_015434 Verrucosispora maris AB-18-032
NC_014391 Micromonospora aurantiaca ATCC 27029
NC_011297 Dictyoglomus thermophilum H-6-12
NC_017243 Brachyspira intermedia PWS/A
NC_013522 Thermanaerovibrio acidaminovorans DSM 6589
NC_016148 Thermovirga lienii DSM 17291
NC_018024 Anaerobaculum mobile DSM 13181
NC_014011 Aminobacterium colombiense DSM 12261
NC_021038 Fretibacterium fastidiosum
NC_014831 Thermaerobacter marianensis DSM 12885
NC_021214 Thermotoga maritima MSB8
NC_011653 Thermosipho africanus TCF52B
NC_017095 Fervidobacterium pennivorans DSM 9078
NC_012785 Kosmotoga olearia TBF 19.5.1
NC_017934 Mesotoga prima MesG1.Ag.4.2
NC_010003 Petrotoga mobilis SJ95
NC_016751 Marinitoga piezophila KA3
NC_020520 Ilumatobacter coccineus YM16-304
NC_010376 Finegoldia magna ATCC 29328
NC_021042 Faecalibacterium prausnitzii L2-6
NC_015913 Candidatus Arthromitus sp. SFB-mouse-Japan
NC_009495 Clostridium botulinum A str. ATCC 3502
NC_003030 Clostridium acetobutylicum ATCC 824
NC_015278 Aerococcus urinae ACS-120-V-Col10a
NC_014220 Syntrophothermus lipocalidus DSM 12680
NC_008346 Syntrophomonas wolfei subsp. wolfei str. Goettingen G311
NC_018020 Turneriella parva DSM 21527
NC_014828 Ethanoligenens harbinense YUAN-3
NC_010602 Leptospira biflexa serovar Patoc strain 'Patoc 1 (Paris)'
NC_010718 Natranaerobius thermophilus JW/NM-WN-LF
NC_017068 Selenomonas ruminantium subsp. lactilytica TAM6421
NC_021041 Megamonas hypermegale ART12/1
NC_013520 Veillonella parvula DSM 2008
NC_015873 Megasphaera elsdenii DSM 20460
NC_021009 Coprococcus catus GD/7
NC_021012 Roseburia intestinalis XB6B4
NC_014387 Butyrivibrio proteoclasticus B316
NC_009437 Caldicellulosiruptor saccharolyticus DSM 8903
NC_019970 Thermoanaerobacterium thermosaccharolyticum M0795
NC_003869 Thermoanaerobacter tengcongensis MB4
NC_016077 Acidaminococcus intestini RyC-MR95
NC_013171 Anaerococcus prevotii DSM 20548
NC_016048 Oscillibacter valericigenes Sjm18-20
NC_015520 Mahella australiensis 50-1 BON
NC_009633 Alkaliphilus metalliredigens QYMF
NC_013124 Acidimicrobium ferrooxidans DSM 10331
NC_013895 Clostridiales genomosp. BVAB3 str. UPII9-5
NC_016630 Filifactor alocis ATCC 35896
NC_016894 Acetobacterium woodii DSM 1030
NC_009089 Clostridioides difficile 630
NC_014833 Ruminococcus albus 7 = DSM 20455
NC_014624 Eubacterium limosum KIST612
NC_016894 Acetobacterium woodii DSM 1030
NC_019954 Tepidanaerobacter acetatoxydans Re1
NC_014377 Thermosediminibacter oceani DSM 16646
NC_015690 Paenibacillus mucilaginosus KNP414
NC_011999 Macrococcus caseolyticus JCSC5402
NC_002745 Staphylococcus aureus subsp. aureus N315
NC_017167 Alicyclobacillus acidocaldarius subsp. acidocaldarius Tc-4-1
NC_014098 Kyrpidia tusciae DSM 2912
NC_019897 Thermobacillus composti KWC4
NC_015690 Paenibacillus mucilaginosus KNP414
NC_012491 Brevibacillus brevis NBRC 100599
NC_010382 Lysinibacillus sphaericus C3-41
NC_018065 Solibacillus silvestris StLB046
NC_022794 Exiguobacterium sp. MH3
NC_003212 Listeria innocua Clip11262
NC_002570 Bacillus halodurans C-125
NC_000964 Bacillus subtilis subsp. subtilis str. 168
NC_003997 Bacillus anthracis str. Ames
NC_020238 Bacillus thuringiensis serovar kurstaki str. HD73
NC_011567 Anoxybacillus flavithermus WK1
NC_016593 Geobacillus thermoleovorans CCB_US3_UF5
NC_018704 Amphibacillus xylanus NBRC 15112
NC_017668 Halobacillus halophilus DSM 2266
NC_004193 Oceanobacillus iheyensis HTE831
NC_008528 Oenococcus oeni PSU-1
NC_015759 Weissella koreensis KACC 15510
NC_014136 Leuconostoc kimchii IMSNU 11154
NC_020229 Lactobacillus plantarum ZJ316
NC_016605 Pediococcus claussenii ATCC BAA-344
NC_016052 Tetragenococcus halophilus NBRC 12172
NC_019425 Carnobacterium maltaromaticum LMA28
NC_015516 Melissococcus plutonius ATCC 35311
NC_004668 Enterococcus faecalis V583
NC_002662 Lactococcus lactis subsp. lactis Il1403
NC_002737 Streptococcus pyogenes M1 GAS
NC_003028 Streptococcus pneumoniae TIGR4
NC_006177 Symbiobacterium thermophilum IAM 14863
NC_015757 Sulfobacillus acidophilus TPY
NC_018867 Dehalobacter sp. CF
NC_015172 Syntrophobotulus glycolicus DSM 8271
NC_016584 Desulfosporosinus orientis DSM 765
NC_007907 Desulfitobacterium hafniense Y51
NC_013385 Ammonifex degensii KC4
NC_021041 Megamonas hypermegale ART12/1
NC_010337 Heliobacterium modesticaldum Ice1
NC_007503 Carboxydothermus hydrogenoformans Z-2901
NC_014152 Thermincola potens JR
NC_010424 Candidatus Desulforudis audaxviator MP104C
NC_009454 Pelotomaculum thermopropionicum SI
NC_021184 Desulfotomaculum gibsoniae DSM 7213
NC_017080 Phycisphaera mikurensis NBRC 102666
NC_010793 Orientia tsutsugamushi str. Ikeda


NC_011662 Thauera sp. MZ1T
NC_020516 Azoarcus sp. KH32C
NC_021919 Candidatus Nasuia deltocephalinicola str. NAS-ALF
NC_014774 Candidatus Liberibacter solanacearum CLso-ZC1
NC_016609 Niastella koreensis GR20-10
NC_022234 Variovorax paradoxus B4
NC_007908 Rhodoferax ferrireducens T118
NC_015713 Simkania negevensis Z
NC_014225 Waddlia chondrophila WSU 86-1044
NC_005861 Candidatus Protochlamydia amoebophila UWE25
NC_015702 Parachlamydia acanthamoebae UV-7
NC_017080 Phycisphaera mikurensis NBRC 102666
NC_015174 Planctomyces brasiliensis DSM 5305
NC_014962 Isosphaera pallida ATCC 43644
NC_019892 Singulisphaera acidiphila DSM 18658
NC_013720 Pirellula staleyi DSM 6068
NC_005027 Rhodopirellula baltica SH 1
NC_013515 Streptobacillus moniliformis DSM 12112
NC_013192 Leptotrichia buccalis C-1013-b
NC_013517 Sebaldella termitidis ATCC 33386
NC_003454 Fusobacterium nucleatum subsp. nucleatum ATCC 25586
NC_014632 Ilyobacter polytropus DSM 2926
NC_015174 Planctomyces brasiliensis DSM 5305
NC_014962 Isosphaera pallida ATCC 43644
NC_019892 Singulisphaera acidiphila DSM 18658
NC_013720 Pirellula staleyi DSM 6068
NC_005027 Rhodopirellula baltica SH 1
NC_015713 Simkania negevensis Z
NC_000117 Chlamydia trachomatis D/UW-3/CX
NC_000922 Chlamydophila pneumoniae CWL029
NC_005861 Candidatus Protochlamydia amoebophila UWE25
NC_014225 Waddlia chondrophila WSU 86-1044
NC_015702 Parachlamydia acanthamoebae UV-7
NC_015174 Planctomyces brasiliensis DSM 5305
NC_014962 Isosphaera pallida ATCC 43644
NC_019892 Singulisphaera acidiphila DSM 18658
NC_013720 Pirellula staleyi DSM 6068
NC_005027 Rhodopirellula baltica SH 1
NC_017080 Phycisphaera mikurensis NBRC 102666
NC_014166 Arcobacter nitrofigilis DSM 7299
NC_014935 Nitratifractor salsuginis DSM 16511
NC_009663 Sulfurovum sp. NBC37-1
NC_014506 Sulfurimonas autotrophica DSM 16294
NC_014762 Sulfuricurvum kujiense DSM 16994
NC_018939 Helicobacter pylori 26695
NC_005090 Wolinella succinogenes DSM 1740
NC_018002 Sulfurospirillum barnesii SES-3
NC_002163 Campylobacter jejuni subsp. jejuni NCTC 11168 = ATCC 700819
NC_012115 Nautilia profundicola AmH
NC_009662 Nitratiruptor sp. SB155-2
NC_015185 Desulfurobacterium thermolithotrophum DSM 11699
NC_014926 Thermovibrio ammonificans HB-1
NC_012440 Persephonella marina EX-H1
NC_012438 Sulfurihydrogenibium azorense Az-Fu1
NC_011126 Hydrogenobaculum sp. Y04AAS1
NC_000918 Aquifex aeolicus VF5
NC_013894 Thermocrinis albus DSM 14484
NC_013799 Hydrogenobacter thermophilus TK-6
NC_015318 Hippea maritima DSM 10411
NC_013410 Fibrobacter succinogenes subsp. succinogenes S85
NC_016620 Bacteriovorax marinus SJ
NC_021658 Sorangium cellulosum So0157-2
NC_005363 Bdellovibrio bacteriovorus HD100
NC_010655 Akkermansia muciniphila ATCC BAA-835
NC_010571 Opitutus terrae PB90-1
NC_010794 Methylacidiphilum infernorum V4
NC_010571 Opitutus terrae PB90-1
NC_014008 Coraliomargarita akajimensis DSM 45221
NC_016940 Saprospira grandis str. Lewin
NC_014836 Desulfurispirillum indicum S5
NC_011296 Thermodesulfovibrio yellowstonii DSM 11347
NC_012489 Gemmatimonas aurantiaca T-27
NC_016024 Candidatus Chloracidobacterium thermophilum B
NC_008536 Candidatus Solibacter usitatus Ellin6076
NC_008009 Candidatus Koribacter versatilis Ellin345
NC_018014 Terriglobus roseus DSM 18391
NC_016631 Granulicella mallensis MP5ACTX8
NC_015064 Granulicella tundricola MP5ACTX9
NC_015681 Thermodesulfatator indicus DSM 15286
NC_015682 Thermodesulfobacterium geofontis OPF15
NC_006138 Desulfotalea psychrophila LSv54
NC_007759 Syntrophus aciditrophicus SB
NC_007759 Syntrophus aciditrophicus SB
NC_013440 Haliangium ochraceum DSM 14365
NC_013223 Desulfohalobium retbaense DSM 5692
NC_013173 Desulfomicrobium baculatum DSM 4028
NC_002937 Desulfovibrio vulgaris str. Hildenborough
NC_020127 Lawsonia intracellularis N343
NC_012108 Desulfobacterium autotrophicum HRM2
NC_018645 Desulfobacula toluolica Tol2
NC_009943 Desulfococcus oleovorans Hxd3
NC_011768 Desulfatibacillum alkenivorans AK-01
NC_014365 Desulfarculus baarsii DSM 2075
NC_020304 Desulfocapsa sulfexigens DSM 10523
NC_014972 Desulfobulbus propionicus DSM 2032
NC_014216 Desulfurivibrio alkaliphilus AHT2
NC_008554 Syntrophobacter fumaroxidans MPOB
NC_008554 Syntrophobacter fumaroxidans MPOB
NC_007759 Syntrophus aciditrophicus SB
NC_015388 Desulfobacca acetoxidans DSM 11109
NC_018025 Desulfomonile tiedjei DSM 6799
NC_021658 Sorangium cellulosum So0157-2
NC_011891 Anaeromyxobacter dehalogenans 2CP-1
NC_008095 Myxococcus xanthus DK 1622
NC_014623 Stigmatella aurantiaca DW4/3-1
NC_017030 Corallococcus coralloides DSM 2259
NC_013440 Haliangium ochraceum DSM 14365
NC_008609 Pelobacter propionicus DSM 2379
NC_007517 Geobacter metallireducens GS-15
NC_011891 Anaeromyxobacter dehalogenans 2CP-1
NC_008095 Myxococcus xanthus DK 1622
NC_014623 Stigmatella aurantiaca DW4/3-1
NC_017030 Corallococcus coralloides DSM 2259
NC_013260 Candidatus Methylomirabilis oxyfera
NC_013943 Denitrovibrio acetiphilus DSM 12809
NC_015672 Flexistipes sinusarabici DSM 4947
NC_014758 Calditerrivibrio nitroreducens DSM 19672
NC_013939 Deferribacter desulfuricans SSM1
NC_018649 Leptospirillum ferriphilum ML-04
NC_014355 Candidatus Nitrospira defluvii
NC_015510 Haliscomenobacter hydrossis DSM 1100
NC_014032 Salinibacter ruber M8
NC_014032 Salinibacter ruber M8
NC_015510 Haliscomenobacter hydrossis DSM 1100
NC_013501 Rhodothermus marinus DSM 4252
NC_017464 Ignavibacterium album JCM 16511
NC_018178 Melioribacter roseus P3M-2
NC_011026 Chloroherpeton thalassium ATCC 35110
NC_011059 Prosthecochloris aestuarii DSM 271
NC_011060 Pelodictyon phaeoclathratiforme BU-1
NC_011027 Chlorobaculum parvum NCIB 8327
NC_002932 Chlorobium tepidum TLS
NC_016599 Owenweeksia hongkongensis DSM 17368
NC_020135 Candidatus Uzinura diaspidicola str. ASNER
NC_014499 Candidatus Sulcia muelleri CARI
NC_013454 Blattabacterium sp. str. Bge
NC_018721 Psychroflexus torquis ATCC 700755
NC_009441 Flavobacterium johnsoniae UW101
NC_015846 Capnocytophaga canimorsus Cc5
NC_015496 Dokdonia sp. 4H-3-7-5
NC_020156 Nonlabens dokdonensis DSW-6
NC_015945 Muricauda ruestringensis DSM 13258
NC_020830 Polaribacter sp. MED152
NC_018013 Aequorivita sublithincola DSM 14238
NC_015844 Zobellia galactanivorans
NC_013222 Robiginitalea biformata HTCC2501
NC_014934 Cellulophaga algicola DSM 14237
NC_014041 Zunongwangia profunda SM-A87
NC_008571 Gramella forsetii KT0803
NC_014230 Croceibacter atlanticus HTCC2559
NC_015638 Lacinutrix sp. 5H-3-7-4
NC_015144 Weeksella virosa DSM 16922
NC_018016 Ornithobacterium rhinotracheale DSM 15997
NC_018609 Riemerella anatipestifer RA-CH-1
NC_016609 Niastella koreensis GR20-10
NC_013132 Chitinophaga pinensis DSM 2588
NC_016609 Niastella koreensis GR20-10
NC_015321 Fluviicola taffensis DSM 16823
NC_017770 Solitalea canadensis DSM 3403
NC_015277 Sphingobacterium sp. 21
NC_013061 Pedobacter heparinus DSM 2366
NC_018605 Cardinium endosymbiont cEper1 of Encarsia pergandiella
NC_018018 Flexibacter litoralis DSM 6794
NC_015914 Cyclobacterium marinum DSM 745
NC_018010 Belliella baltica DSM 15883
NC_019904 Echinicola vietnamensis DSM 17526
NC_008255 Cytophaga hutchinsonii ATCC 33406
NC_018748 Emticicia oligotrophica DSM 17448
NC_014655 Leadbetterella byssophila DSM 17132
NC_013037 Dyadobacter fermentans DSM 18053
NC_015703 Runella slithyformis DSM 19594
NC_020054 Fibrella aestuarina BUZ 2
NC_013730 Spirosoma linguale DSM 74
NC_010830 Candidatus Amoebophilus asiaticus 5a2
NC_014759 Marivirga tractuosa DSM 4126
NC_018011 Alistipes finegoldii DSM 17242
NC_015160 Odoribacter splanchnicus DSM 20712
NC_011565 Candidatus Azobacteroides pseudotrichonymphae genomovar. CFP2
NC_015571 Porphyromonas gingivalis TDC60
NC_016610 Tannerella forsythia ATCC 43037
NC_009615 Parabacteroides distasonis ATCC 8503
NC_014033 Prevotella ruminicola 23
NC_014734 Paludibacter propionicigenes WB4
NC_004663 Bacteroides thetaiotaomicron VPI-5482
NC_015722 Candidatus Midichloria mitochondrii IricVA
NC_021894 Candidatus Carsonella ruddii DC
NC_013960 Nitrosococcus halophilus Nc 4
NC_018868 Simiduia agarivorans SA1 = DSM 21679
NC_015731 Nitrosomonas sp. Is79A3
NC_021555 Candidatus Tremblaya phenacola PAVE
NC_014497 Candidatus Zinderia insecticola CARI
NC_002506 Vibrio cholerae O1 biovar El Tor str. N16961
NC_009085 Acinetobacter baumannii ATCC 17978
NC_014147 Moraxella catarrhalis RH4


NC_021661 Psychrobacter sp. G
NC_006570 Francisella tularensis subsp. tularensis SCHU S4
NC_009465 Candidatus Vesicomyosocius okutanii HA
NC_008610 Candidatus Ruthia magnifica str. Cm
NC_015581 Thioalkalimicrobium cyclicum ALM1
NC_007520 Thiomicrospira crunogena XCL-2
NC_011761 Acidithiobacillus ferrooxidans ATCC 23270
NC_009727 Coxiella burnetii Dugway 5J108-111
NC_005085 Chromobacterium violaceum ATCC 12472
NC_014323 Herbaspirillum seropedicae SmR1
NC_007951 Burkholderia xenovorans LB400
NC_007951 Burkholderia xenovorans LB400
NC_012969 Methylovorus glucosetrophus SIP3-4
NC_020521 Legionella pneumophila subsp. pneumophila LPE509
NC_009446 Dichelobacter nodosus VCS1703A
NC_018676 Candidatus Portiera aleyrodidarum BT-QVLC
NC_020888 Thalassolituus oleivorans MIL-1
NC_014914 Taylorella equigenitalis MCE9
NC_015458 Pusillimonas sp. T7-7
NC_017964 Advenella kashmirensis WT001
NC_020294 Candidatus Kinetoplastibacterium desouzaii TCC079E
NC_010170 Bordetella petrii DSM 12804
NC_014640 Achromobacter xylosoxidans A8
NC_007953 Burkholderia xenovorans LB400
NC_007952 Burkholderia xenovorans LB400
NC_013959 Sideroxydans lithotrophicus ES-1
NC_014394 Gallionella capsiferriformans ES-2
NC_009379 Polynucleobacter necessarius subsp. asymbioticus QLW-P1DMWA-1
NC_007404 Thiobacillus denitrificans ATCC 25259
NC_007614 Nitrosospira multiformis ATCC 25196
NC_015731 Nitrosomonas sp. Is79A3
NC_014207 Methylotenera versatilis 301
NC_009138 Herminiimonas arsenicoxydans
NC_009659 Janthinobacterium sp. Marseille
NC_012969 Methylovorus glucosetrophus SIP3-4
NC_007947 Methylobacillus flagellatus KT
NC_021885 Candidatus Profftella armatura
NC_015856 Collimonas fungivorans Ter331
NC_014323 Herbaspirillum seropedicae SmR1
NC_022357 Sulfuricella denitrificans skB26
NC_003112 Neisseria meningitidis MC58
NC_012559 Laribacter hongkongensis HLHK9
NC_012559 Laribacter hongkongensis HLHK9
NC_005085 Chromobacterium violaceum ATCC 12472
NC_016002 Pseudogulbenkiania sp. NH8B
NC_014145 Thiomonas arsenitoxydans
NC_017075 Rubrivivax gelatinosus IL144
NC_022576 Candidatus Symbiobacter mobilis CR
NC_010002 Delftia acidovorans SPH-1
NC_013446 Comamonas testosteroni CNB-2
NC_008825 Methylibium petroleiphilum PM1
NC_015677 Ramlibacter tataouinensis TTB310
NC_008786 Verminephrobacter eiseniae EF01-2
NC_022247 Variovorax paradoxus B4
NC_010524 Leptothrix cholodnii SP-6
NC_015422 Alicycliphilus denitrificans K601
NC_015138 Acidovorax avenae subsp. avenae ATCC 19860
NC_007948 Polaromonas sp. JS666
NC_007908 Rhodoferax ferrireducens T118
NC_007951 Burkholderia xenovorans LB400
NC_022904 Pandoraea pnomenusa 3kgm
NC_015726 Cupriavidus necator N-1
NC_003295 Ralstonia solanacearum GMI1000
NC_013194 Candidatus Accumulibacter phosphatis clade IIA str. UW-1
NC_007298 Dechloromonas aromatica RCB
NC_016616 Dechlorosoma suillum PS
NC_006513 Aromatoleum aromaticum EbN1
NC_020516 Azoarcus sp. KH32C
NC_011662 Thauera sp. MZ1T
NC_013422 Halothiobacillus neapolitanus c2
NC_009654 Marinomonas sp. MWYL1
NC_008260 Alcanivorax borkumensis SK2
NC_013166 Kangiella koreensis DSM 16069
NC_008709 Psychromonas ingrahamii 37
NC_008709 Psychromonas ingrahamii 37
NC_012751 Candidatus Hamiltonella defensa 5AT
NC_003910 Colwellia psychrerythraea 34H
NC_014109 Candidatus Riesia pediculicola USDA
NC_002528 Buchnera aphidicola str. APS
NC_012691 Tolumonas auensis DSM 9187
NC_009348 Aeromonas salmonicida subsp. salmonicida A449
NC_016745 Oceanimonas sp. GK1
NC_020515 Bibersteinia trehalosi USDA-ARS-USMARC-192
NC_018690 Actinobacillus suis H91-0380
NC_021082 Mannheimia haemolytica M42548
NC_015460 Gallibacterium anatis UMN179
NC_000907 Haemophilus influenzae Rd KW20
NC_017846 Aggregatibacter actinomycetemcomitans D7S-1
NC_002663 Pasteurella multocida subsp. multocida str. Pm70
NC_007984 Baumannia cicadellinicola str. Hc
NC_022547 Halyomorpha halys symbiont
NC_012779 Edwardsiella ictaluri 93-146
NC_014500 Dickeya dadantii 3937
NC_014837 Pantoea sp. At-9b
NC_013971 Erwinia amylovora ATCC 49946
NC_021659 Serratia plymuthica S13
NC_013282 Cronobacter turicensis z3032
NC_009792 Citrobacter koseri ATCC BAA-895
NC_003197 Salmonella enterica subsp. enterica serovar Typhimurium str. LT2
NC_000913 Escherichia coli str. K-12 substr. MG1655
NC_002695 Escherichia coli O157:H7 str. Sakai
NC_022912 Shigella dysenteriae 1617
NC_017845 Pectobacterium sp. SCC3193
NC_021066 Raoultella ornithinolytica B6
NC_011283 Klebsiella pneumoniae 342
NC_014121 Enterobacter cloacae subsp. cloacae ATCC 13047
NC_015061 Rahnella sp. Y9602
NC_003143 Yersinia pestis CO92
NC_016893 Wigglesworthia glossinidia endosymbiont of Glossina morsitans morsitans (Yale colony)
NC_018420 secondary endosymbiont of Heteropsylla cubana
NC_007292 Candidatus Blochmannia pennsylvanicus str. BPEN
NC_018419 secondary endosymbiont of Ctenarytaina eucalypti
NC_021057 Candidatus Moranella endobia PCVAL
NC_007712 Sodalis glossinidius str. 'morsitans'
NC_005126 Photorhabdus luminescens subsp. laumondii TTO1
NC_010554 Proteus mirabilis HI4320
NC_020418 Morganella morganii subsp. morganii KT
NC_017731 Providencia stuartii MRSN 2154
NC_004347 Shewanella oneidensis MR-1
NC_014541 Ferrimonas balearica DSM 9799
NC_006370 Photobacterium profundum SS9
NC_011312 Aliivibrio salmonicida LFI1238
NC_002505 Vibrio cholerae O1 biovar El Tor str. N16961
NC_022223 Listonella anguillarum M3
NC_006512 Idiomarina loihiensis L2TR
NC_015554 Alteromonas sp. SN2
NC_008228 Pseudoalteromonas atlantica T6c
NC_020514 Glaciecola psychrophila 170
NC_007963 Chromohalobacter salexigens DSM 3043
NC_014532 Halomonas elongata DSM 2581
NC_021291 Spiribacter salinus M19-40
NC_022664 Spiribacter sp. UAH-SP71
NC_008789 Halorhodospira halophila SL1
NC_008340 Alkalilimnicola ehrlichii MLHE-1
NC_017857 Methylophaga nitratireducenticrescens
NC_021917 Cycloclasticus zancles 7-ME
NC_017506 Marinobacter adhaerens HP15
NC_007645 Hahella chejuensis KCTC 2396
NC_002516 Pseudomonas aeruginosa PAO1
NC_012560 Azotobacter vinelandii DJ
NC_007912 Saccharophagus degradans 2-40
NC_012997 Teredinibacter turnerae T7901
NC_010995 Cellvibrio japonicus Ueda107
NC_018868 Simiduia agarivorans SA1 = DSM 21679
NC_018868 Simiduia agarivorans SA1 = DSM 21679
NC_002977 Methylococcus capsulatus str. Bath
NC_018012 Thiocystis violascens DSM 198
NC_013851 Allochromatium vinosum DSM 180
NC_019940 Thioflavicoccus mobilis 8321
NC_018012 Thiocystis violascens DSM 198
NC_013851 Allochromatium vinosum DSM 180
NC_020541 Rhodanobacter denitrificans
NC_017033 Frateuria aurantia DSM 6220
NC_002488 Xylella fastidiosa 9a5c
NC_010943 Stenotrophomonas maltophilia K279a
NC_016147 Pseudoxanthomonas spadix BD-a59
NC_010717 Xanthomonas oryzae pv. oryzae PXO99A
NC_013960 Nitrosococcus halophilus Nc 4
NC_019902 Thioalkalivibrio nitratireducens DSM 14787
NC_002977 Methylococcus capsulatus str. Bath
NC_015572 Methylomonas methanica MC09
NC_016112 Methylomicrobium alcaliphilum 20Z
NC_012960 Candidatus Hodgkinia cicadicola Dsem
NC_000963 Rickettsia prowazekii str. Madrid E
NC_003103 Rickettsia conorii str. Malish 7
NC_008576 Magnetococcus marinus MC-1
NC_015380 Candidatus Pelagibacter sp. IMCC9063
NC_014010 Candidatus Puniceispirillum marinum IMCC1322
NC_019566 Candidatus Endolissoclinum faulkneri L2
NC_016026 Micavibrio aeruginosavorus ARL-13
NC_016618 Azospirillum brasilense Sp245
NC_014414 Parvularcula bermudensis HTCC2503
NC_008347 Maricaulis maris MCS10
NC_011143 Phenylobacterium zucineum HLK1
NC_014816 Asticcacaulis excentricus CB 48
NC_014375 Brevundimonas subvibrioides ATCC 15264
NC_011144 Phenylobacterium zucineum HLK1
NC_002696 Caulobacter crescentus CB15
NC_013355 Zymomonas mobilis subsp. mobilis NCIMB 11163
NC_008048 Sphingopyxis alaskensis RB2256
NC_009511 Sphingomonas wittichii RW1
NC_014006 Sphingobium japonicum UT26S
NC_015580 Novosphingobium sp. PP1Y
NC_007722 Erythrobacter litoralis HTCC2594
NC_010125 Gluconacetobacter diazotrophicus PA1 5
NC_015186 Acidiphilium multivorum AIU301
NC_008343 Granulibacter bethesdensis CGDNIH1
NC_013209 Acetobacter pasteurianus IFO 3283-01
NC_019396 Gluconobacter oxydans H24
NC_010125 Gluconacetobacter diazotrophicus PA1 5
NC_012982 Hirschia baltica ATCC 49814
NC_008358 Hyphomonas neptunium ATCC 15444
NC_003037 Sinorhizobium meliloti 1021
NC_008380 Rhizobium leguminosarum bv. viciae 3841
NC_002678 Mesorhizobium loti MAFF303099
NC_014217 Starkeya novella DSM 506
NC_014664 Rhodomicrobium vannielii ATCC 17100
NC_009719 Parvibaculum lavamentivorans DS-1
NC_018485 Methylocystis sp. SC2
NC_010581 Beijerinckia indica subsp. indica ATCC 9039
NC_011666 Methylocella silvestris BL2

NC_015717 *Hyphomicrobium sp. MC1*
NC_016078 *Pelagibacterium halotolerans B2*
NC_003047 *Sinorhizobium meliloti 1021*
NC_002678 *Mesorhizobium loti MAFF303099*
NC_008254 *Chelativorans sp. BNC1*
NC_003078 *Sinorhizobium meliloti 1021*
NC_008378 *Rhizobium leguminosarum bv. viciae 3841*
NC_017249 *Bradyrhizobium japonicum USDA 6*
NC_008048 *Sphingopyxis alaskensis RB2256*
NC_007722 *Erythrobacter litoralis HTCC2594*
NC_017249 *Bradyrhizobium japonicum USDA 6*
NC_011386 *Oligotropha carboxidovorans OM5*
NC_017249 *Bradyrhizobium japonicum USDA 6*
NC_007964 *Nitrobacter hamburgensis X14*
NC_007964 *Nitrobacter hamburgensis X14*
NC_020453 *Bradyrhizobium oligotrophicum S58*
NC_017249 *Bradyrhizobium japonicum USDA 6*
NC_005296 *Rhodopseudomonas palustris CGA009*
NC_005955 *Bartonella quintana str. Toulouse*
NC_009668 *Ochrobactrum anthropi ATCC 49188*
NC_003318 *Brucella melitensis bv. 1 str. 16M*
NC_008380 *Rhizobium leguminosarum bv. viciae 3841*
NC_003062 *Agrobacterium fabrum str. C58*
NC_003047 *Sinorhizobium meliloti 1021*
NC_003037 *Sinorhizobium meliloti 1021*
NC_008254 *Chelativorans sp. BNC1*
NC_002678 *Mesorhizobium loti MAFF303099*
NC_002678 *Mesorhizobium loti MAFF303099*
NC_002679 *Mesorhizobium loti MAFF303099*
NC_014217 *Starkeya novella DSM506*
NC_009720 *Xanthobacter autotrophicus Py2*
NC_009937 *Azorhizobium caulinodans ORS 571*
NC_007964 *Nitrobacter hamburgensis X14*
NC_005296 *Rhodopseudomonas palustris CGA009*
NC_011386 *Oligotropha carboxidovorans OM5*
NC_017249 *Bradyrhizobium japonicum USDA 6*
NC_020453 *Bradyrhizobium oligotrophicum S58*
NC_016642 *Pseudovibrio sp. FO-BEG1*
NC_015259 *Polymorphum gilvum SL003B-26A1*
NC_011894 *Methylobacterium nodulans ORS 2060*
NC_011887 *Methylobacterium nodulans ORS 2060*
NC_011894 *Methylobacterium nodulans ORS 2060*
NC_014217 *Starkeya novella DSM506*
NC_009720 *Xanthobacter autotrophicus Py2*
NC_009937 *Azorhizobium caulinodans ORS 571*
NC_017956 *Tistrella mobilis KA081020-065*
NC_007626 *Magnetospirillum magneticum AMB-1*
NC_016594 *Azospirillum brasilense Sp245*
NC_016617 *Azospirillum brasilense Sp245*
NC_011420 *Rhodospirillum centenum SW*
NC_011958 *Rhodobacter sphaeroides KD131*
NC_023135 *Leisingera methylohalidivorans DSM14336*
NC_020908 *Octadecabacter arcticus 238*
NC_020908 *Octadecabacter arcticus 238*
NC_014625 *Ketogulonicigenium vulgare Y25*
NC_011963 *Rhodobacter sphaeroides KD131*
NC_008688 *Paracoccus denitrificans PD1222*
NC_008687 *Paracoccus denitrificans PD1222*
NC_007802 *Jannaschia sp. CCS1*
NC_003911 *Ruegeria pomeroyi DSS-3*
NC_023137 *Phaeobacter gallaeciensis DSM26640*
NC_023135 *Leisingera methylohalidivorans DSM14336*
NC_020908 *Octadecabacter arcticus 238*
NC_009952 *Dinoroseobacter shibae DFL 12 = DSM16493*
NC_015730 *Roseobacter litoralis Och 149*



COG0459 Chaperonin GroEL (HSP60 family)
COG0234 Co-chaperonin GroES (HSP10)