

KEGG Code	Category 1	Category 2	Category 3	Category 4	Species
hsa	Eukaryotes	Animals	Vertebrates	Mammals	Homo sapiens (human)
ptr	Eukaryotes	Animals	Vertebrates	Mammals	Pan troglodytes (chimpanzee)
mmu	Eukaryotes	Animals	Vertebrates	Mammals	Mus musculus (mouse)
rno	Eukaryotes	Animals	Vertebrates	Mammals	Rattus norvegicus (rat)
cfa	Eukaryotes	Animals	Vertebrates	Mammals	Canis familiaris (dog)
bta	Eukaryotes	Animals	Vertebrates	Mammals	Bos taurus (cow)
ssc	Eukaryotes	Animals	Vertebrates	Mammals	Sus scrofa (pig)
gga	Eukaryotes	Animals	Vertebrates	Bird	Gallus gallus (chicken)
xla	Eukaryotes	Animals	Vertebrates	Amphibians	Xenopus laevis (African clawed frog)
xtr	Eukaryotes	Animals	Vertebrates	Amphibians	Xenopus tropicalis (western clawed frog)
dre	Eukaryotes	Animals	Vertebrates	Fishes	Danio rerio (zebrafish)
dfnu	Eukaryotes	Animals	Vertebrates	Fishes	Fugu rubripes (Japanese puffer fish)
dtni	Eukaryotes	Animals	Vertebrates	Fishes	Tetraodon nigroviridis (green spotted puffer)
dcin	Eukaryotes	Animals	Ascidians	X	Ciona intestinalis (sea squirt)
ecsv	Eukaryotes	Animals	Ascidians	X	Ciona savignyi (EST)
emte	Eukaryotes	Animals	Ascidians	X	Molgula tectiformis (EST)
spu	Eukaryotes	Animals	Echinoderms	X	Strongylocentrotus purpuratus (purple sea urchin)
espu	Eukaryotes	Animals	Echinoderms	X	Strongylocentrotus purpuratus (purple sea urchin) (EST)
dme	Eukaryotes	Animals	Insects	X	Drosophila melanogaster (fruit fly)
ddpo	Eukaryotes	Animals	Insects	X	Drosophila pseudoobscura
daga	Eukaryotes	Animals	Insects	X	Anopheles gambiae (mosquito)
dame	Eukaryotes	Animals	Insects	X	Apis mellifera (honey bee)
dbmo	Eukaryotes	Animals	Insects	X	Bombyx mori (silkworm)
cel	Eukaryotes	Animals	Nematodes	X	Caenorhabditis elegans (nematode)
dabr	Eukaryotes	Animals	Nematodes	X	Caenorhabditis briggsae
esja	Eukaryotes	Animals	Flatworms	X	Schistosoma japonicum (flake) (EST)
ath	Eukaryotes	Plants	Dicotyledons	mustard family	Arabidopsis thaliana (thale cress)
eath	Eukaryotes	Plants	Dicotyledons	mustard family	Arabidopsis thaliana (thale cress) (EST)
ebna	Eukaryotes	Plants	Dicotyledons	mustard family	Brassica napus (rape) (EST)
ecsi	Eukaryotes	Plants	Dicotyledons	rue family	Citrus sinensis (Valencia orange) (EST)
egar	Eukaryotes	Plants	Dicotyledons	mallow family	Gossypium arboreum (cotton) (EST)
egra	Eukaryotes	Plants	Dicotyledons	mallow family	Gossypium raimondii (EST)
egma	Eukaryotes	Plants	Dicotyledons	pea family	Glycine max (soybean) (EST)
elco	Eukaryotes	Plants	Dicotyledons	pea family	Lotus corniculatus (lotus) (EST)
emtr	Eukaryotes	Plants	Dicotyledons	pea family	Medicago truncatula (barrel medic) (EST)
eptp	Eukaryotes	Plants	Dicotyledons	willow family	Populus tremula (aspen) (EST)
epba	Eukaryotes	Plants	Dicotyledons	willow family	Populus balsamifera (poplar) (EST)
ehan	Eukaryotes	Plants	Dicotyledons	daisy family	Helianthus annuus (sunflower) (EST)
elsa	Eukaryotes	Plants	Dicotyledons	daisy family	Lactuca sativa (lettuce) (EST)
eles	Eukaryotes	Plants	Dicotyledons	nightshade family	Lycopersicon esculentum (tomato) (EST)
estu	Eukaryotes	Plants	Dicotyledons	nightshade family	Solanum tuberosum (potato) (EST)
evvi	Eukaryotes	Plants	Dicotyledons	grape family	Vitis vinifera (wine grape) (EST)
osa	Eukaryotes	Plants	Monocotyledons	grass family	Oryza sativa japonica (Japanese rice)
eosa	Eukaryotes	Plants	Monocotyledons	grass family	Oryza sativa (rice) (EST)
ehvu	Eukaryotes	Plants	Monocotyledons	grass family	Hordeum vulgare (barley) (EST)
etae	Eukaryotes	Plants	Monocotyledons	grass family	Triticum aestivum (wheat) (EST)
ezma	Eukaryotes	Plants	Monocotyledons	grass family	Zea mays (maize) (EST)
esof	Eukaryotes	Plants	Monocotyledons	grass family	Saccharum officinarum (sugarcane) (EST)
esbi	Eukaryotes	Plants	Monocotyledons	grass family	Sorghum bicolor (sorghum) (EST)
epta	Eukaryotes	Plants	Other seed plants	pine family	Pinus taeda (loblolly pine) (EST)
epgl	Eukaryotes	Plants	Other seed plants	pine family	Picea glauca (white spruce) (EST)
eppa	Eukaryotes	Plants	Mosses	X	Physcomitrella patens (EST)
eppp	Eukaryotes	Plants	Mosses	X	Physcomitrella patens subsp. patens (EST)
cme	Eukaryotes	Plants	Red Alga	X	Cyanidioschyzon merolae
sce	Eukaryotes	Fungi	Ascomycetes	Saccharomycetes	Saccharomyces cerevisiae
dspd	Eukaryotes	Fungi	Ascomycetes	Saccharomycetes	Saccharomyces paradoxus
dsmi	Eukaryotes	Fungi	Ascomycetes	Saccharomycetes	Saccharomyces mikatae
dsba	Eukaryotes	Fungi	Ascomycetes	Saccharomycetes	Saccharomyces bayanus
ago	Eukaryotes	Fungi	Ascomycetes	Saccharomycetes	Ashbya gossypii (Eremothecium gossypii)
dkla	Eukaryotes	Fungi	Ascomycetes	Saccharomycetes	Kluyveromyces lactis
dkwa	Eukaryotes	Fungi	Ascomycetes	Saccharomycetes	Kluyveromyces waltii
ddha	Eukaryotes	Fungi	Ascomycetes	Saccharomycetes	Debaryomyces hansenii
cal	Eukaryotes	Fungi	Ascomycetes	Saccharomycetes	Candida albicans
dcgr	Eukaryotes	Fungi	Ascomycetes	Saccharomycetes	Candida glabrata
dyli	Eukaryotes	Fungi	Ascomycetes	Saccharomycetes	Yarrowia lipolytica
spo	Eukaryotes	Fungi	Ascomycetes	Schizosaccharomyce	Schizosaccharomyces pombe
dncr	Eukaryotes	Fungi	Ascomycetes	Sordariomycete	Neurospora crassa

dmgr	Eukaryotes	Fungi	Ascomycetes	Sordariomycete	Magnaporthe grisea
ani	Eukaryotes	Fungi	Ascomycetes	Eurotiales	Aspergillus nidulans
afm	Eukaryotes	Fungi	Ascomycetes	Eurotiales	Aspergillus fumigatus
aor	Eukaryotes	Fungi	Ascomycetes	Eurotiales	Aspergillus oryzae
cne	Eukaryotes	Fungi	Basidiomycetes	X	Cryptococcus neoformans JEC21
dcnb	Eukaryotes	Fungi	Basidiomycetes	X	Cryptococcus neoformans B-3501A
ecu	Eukaryotes	Fungi	Microsporidian	X	Encephalitozoon cuniculi
ddi	Eukaryotes	Protists	Cellular slime mold	X	Dictyostelium discoideum
pfa	Eukaryotes	Protists	Alveolates	Apicomplexa	Plasmodium falciparum
dpvo	Eukaryotes	Protists	Alveolates	Apicomplexa	Plasmodium yoelii
dpkn	Eukaryotes	Protists	Alveolates	Apicomplexa	Plasmodium knowlesi
cpv	Eukaryotes	Protists	Alveolates	Apicomplexa	Cryptosporidium parvum
cho	Eukaryotes	Protists	Alveolates	Apicomplexa	Cryptosporidium hominis
tan	Eukaryotes	Protists	Alveolates	Apicomplexa	Theileria annulata
tpv	Eukaryotes	Protists	Alveolates	Apicomplexa	Theileria parva
tbr	Eukaryotes	Protists	Euglenozoa	X	Trypanosoma brucei
tcr	Eukaryotes	Protists	Euglenozoa	X	Trypanosoma cruzi
lma	Eukaryotes	Protists	Euglenozoa	X	Leishmania major
ehi	Eukaryotes	Protists	Entamoeba	X	Entamoeba histolytica
eco	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Escherichia coli K-12 MG1655
ecj	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Escherichia coli K-12 W3110
ece	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Escherichia coli O157 EDL933 (EHEC)
ecs	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Escherichia coli O157 Sakai (EHEC)
ecc	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Escherichia coli CFT073 (UPEC)
eci	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Escherichia coli UT189 (UPEC)
ecp	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Escherichia coli 536 (UPEC)
ecv	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Escherichia coli APEC O1
sty	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Salmonella enterica serovar Typhi CT18
stt	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Salmonella enterica serovar Typhi Ty2
spt	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Salmonella enterica serovar Paratyphi A
sec	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Salmonella enterica serovar Choleraesuis
stm	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Salmonella typhimurium LT2
ype	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Yersinia pestis CO92
ypk	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Yersinia pestis KIM
ypm	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Yersinia pestis Mediaevails
ypa	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Yersinia pestis Antiqua
ypn	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Yersinia pestis Nepal516
yps	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Yersinia pseudotuberculosis
yen	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Yersinia enterocolitica
sfl	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Shigella flexneri 301 (serotype 2a)
sfx	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Shigella flexneri 2457T (serotype 2a)
sfv	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Shigella flexneri 8401 (serotype 5b)
ssn	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Shigella sonnei
sbo	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Shigella boydii
sdv	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Shigella dysenteriae
eca	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Erwinia carotovora
plu	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Photobacterium luminescens
buc	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Buchnera aphidicola APS
bas	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Buchnera aphidicola Sg
bab	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Buchnera aphidicola Bp
bcc	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Buchnera aphidicola Cc
wbr	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Wigglesworthia glossinidia
sgl	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Sodalis glossinidius
bfl	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Candidatus Blochmannia floridanus
bpn	Prokaryotes	Bacteria	Proteobacteria	Gamma/enterobacter	Candidatus Blochmannia pennsylvanicus
hin	Prokaryotes	Bacteria	Gamma/others	Haemophilus influenzae (serotype d)	
hit	Prokaryotes	Bacteria	Gamma/others	Haemophilus influenzae 86-028NP (nontypeable)	
hdu	Prokaryotes	Bacteria	Gamma/others	Haemophilus ducreyi	
hso	Prokaryotes	Bacteria	Gamma/others	Haemophilus somnus	
pmu	Prokaryotes	Bacteria	Gamma/others	Pasteurella multocida	
msu	Prokaryotes	Bacteria	Gamma/others	Mannheimia succiniciproducens	
apl	Prokaryotes	Bacteria	Gamma/others	Actinobacillus pleuropneumoniae	
xfa	Prokaryotes	Bacteria	Gamma/others	Xylella fastidiosa 9a5c	
xft	Prokaryotes	Bacteria	Gamma/others	Xylella fastidiosa Temecula1	
xcc	Prokaryotes	Bacteria	Gamma/others	Xanthomonas campestris pv. campestris ATCC 33913	
xcb	Prokaryotes	Bacteria	Gamma/others	Xanthomonas campestris pv. campestris 8004	
xcv	Prokaryotes	Bacteria	Gamma/others	Xanthomonas campestris pv. vesicatoria	
xac	Prokaryotes	Bacteria	Gamma/others	Xanthomonas axonopodis	

xoo	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Xanthomonas oryzae KACC10331
xom	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Xanthomonas oryzae MAFF311018
vch	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Vibrio cholerae
vvu	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Vibrio vulnificus CMCP6
vyv	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Vibrio vulnificus YJ016
vpa	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Vibrio parahaemolyticus
vfi	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Vibrio fischeri
ppr	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Photobacterium profundum
pae	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Pseudomonas aeruginosa PAO1
pau	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Pseudomonas aeruginosa UCBPP-PA14
ppu	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Pseudomonas putida
pst	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Pseudomonas syringae pv. tomato DC3000
psb	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Pseudomonas syringae pv. syringae B728a
psp	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Pseudomonas syringae pv. phaseolicola 1448A
pfl	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Pseudomonas fluorescens Pf-5
pfo	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Pseudomonas fluorescens PfO-1
pen	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Pseudomonas entomophila
par	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Psychrobacter arcticum
pcr	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Psychrobacter cryohalolentis
aci	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Acinetobacter sp. ADP1
acb	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Acinetobacter baumannii
son	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Shewanella oneidensis
sdn	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Shewanella denitrificans
sfr	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Shewanella frigidimarina
saz	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Shewanella amazonensis
sbl	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Shewanella baltica
slo	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Shewanella loihica
she	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Shewanella sp. MR-4
shm	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Shewanella sp. MR-7
shn	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Shewanella sp. ANA-3
shw	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Shewanella sp. W3-18-1
ilo	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Idiomarina loihiensis
cps	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Colwellia psycherythraea
pha	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Pseudoalteromonas haloplanktis
pat	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Pseudoalteromonas atlantica
sde	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Saccharophagus degradans
pin	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Psychromonas ingrahamii
maq	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Marinobacter aquaeolei
cbu	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Coxiella burnetii
lpn	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Legionella pneumophila Philadelphia 1
lpf	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Legionella pneumophila Lens
lpp	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Legionella pneumophila Paris
mca	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Methylococcus capsulatus
ftu	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Francisella tularensis subsp. tularensis SCHU S4
fft	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Francisella tularensis subsp. tularensis FSC 198
ftl	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Francisella tularensis subsp. holarctica LVS
ftf	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Francisella tularensis subsp. holarctica OSU18
ftn	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Francisella tularensis subsp. novicida U112
tcx	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Thiomicrospira crunogena
noc	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Nitrosococcus oceani
aeH	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Alkalilimnicola ehrlichei
hha	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Halorhodospira halophila
hch	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Hahella chejuensis
csa	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Chromohalobacter salexigens
abo	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Alcanivorax borkumensis
aha	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Aeromonas hydrophila
bci	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Baumannia cicadellinicola
crp	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Candidatus Carsonella ruddii
rma	Prokaryotes	Bacteria	Proteobacteria	Gamma/others	Candidatus Ruthia magnifica
nme	Prokaryotes	Bacteria	Proteobacteria	Beta	Neisseria meningitidis MC58 (serogroup B)
nma	Prokaryotes	Bacteria	Proteobacteria	Beta	Neisseria meningitidis Z2491 (serogroup A)
nmc	Prokaryotes	Bacteria	Proteobacteria	Beta	Neisseria meningitidis FAM18
ngo	Prokaryotes	Bacteria	Proteobacteria	Beta	Neisseria gonorrhoeae
cvi	Prokaryotes	Bacteria	Proteobacteria	Beta	Chromobacterium violaceum
rso	Prokaryotes	Bacteria	Proteobacteria	Beta	Ralstonia solanacearum
reu	Prokaryotes	Bacteria	Proteobacteria	Beta	Ralstonia eutropha JMP134
reh	Prokaryotes	Bacteria	Proteobacteria	Beta	Ralstonia eutropha H16
rme	Prokaryotes	Bacteria	Proteobacteria	Beta	Ralstonia metallidurans

bma	Prokaryotes	Bacteria	Proteobacteria	Beta	Burkholderia mallei ATCC 23344
bmv	Prokaryotes	Bacteria	Proteobacteria	Beta	Burkholderia mallei SAVP1
bml	Prokaryotes	Bacteria	Proteobacteria	Beta	Burkholderia mallei NCTC 10229
bmn	Prokaryotes	Bacteria	Proteobacteria	Beta	Burkholderia mallei NCTC 10247
bxe	Prokaryotes	Bacteria	Proteobacteria	Beta	Burkholderia xenovorans
bur	Prokaryotes	Bacteria	Proteobacteria	Beta	Burkholderia sp. 383
bcn	Prokaryotes	Bacteria	Proteobacteria	Beta	Burkholderia cenocepacia AU1054
bch	Prokaryotes	Bacteria	Proteobacteria	Beta	Burkholderia cenocepacia HI2424
bam	Prokaryotes	Bacteria	Proteobacteria	Beta	Burkholderia cepacia
bps	Prokaryotes	Bacteria	Proteobacteria	Beta	Burkholderia pseudomallei K96243
bpm	Prokaryotes	Bacteria	Proteobacteria	Beta	Burkholderia pseudomallei 1710b
bpl	Prokaryotes	Bacteria	Proteobacteria	Beta	Burkholderia pseudomallei 1106a
bpd	Prokaryotes	Bacteria	Proteobacteria	Beta	Burkholderia pseudomallei 668
bte	Prokaryotes	Bacteria	Proteobacteria	Beta	Burkholderia thailandensis
bpe	Prokaryotes	Bacteria	Proteobacteria	Beta	Bordetella pertussis
bpa	Prokaryotes	Bacteria	Proteobacteria	Beta	Bordetella parapertussis
bbr	Prokaryotes	Bacteria	Proteobacteria	Beta	Bordetella bronchiseptica
rfr	Prokaryotes	Bacteria	Proteobacteria	Beta	Rhodoferax ferrireducens
pol	Prokaryotes	Bacteria	Proteobacteria	Beta	Polaromonas sp. JS666
pna	Prokaryotes	Bacteria	Proteobacteria	Beta	Polaromonas naphthalenivorans
aav	Prokaryotes	Bacteria	Proteobacteria	Beta	Acidovorax avenae
ajs	Prokaryotes	Bacteria	Proteobacteria	Beta	Acidovorax sp. JS42
vei	Prokaryotes	Bacteria	Proteobacteria	Beta	Verminephrobacter eiseniae
mpt	Prokaryotes	Bacteria	Proteobacteria	Beta	Methylbium petroleiphilum
neu	Prokaryotes	Bacteria	Proteobacteria	Beta	Nitrosomonas europaea
net	Prokaryotes	Bacteria	Proteobacteria	Beta	Nitrosomonas eutropha
nmu	Prokaryotes	Bacteria	Proteobacteria	Beta	Nitrospira multiformis
eba	Prokaryotes	Bacteria	Proteobacteria	Beta	Azoarcus sp. EbN1
azo	Prokaryotes	Bacteria	Proteobacteria	Beta	Azoarcus sp. BH72
dar	Prokaryotes	Bacteria	Proteobacteria	Beta	Dechloromonas aromatica
tbd	Prokaryotes	Bacteria	Proteobacteria	Beta	Thiobacillus denitrificans
mfa	Prokaryotes	Bacteria	Proteobacteria	Beta	Methylobacillus flagellatus
hpy	Prokaryotes	Bacteria	Proteobacteria	Epsilon	Helicobacter pylori 26695
hpi	Prokaryotes	Bacteria	Proteobacteria	Epsilon	Helicobacter pylori J99
hpa	Prokaryotes	Bacteria	Proteobacteria	Epsilon	Helicobacter pylori HPAG1
hhe	Prokaryotes	Bacteria	Proteobacteria	Epsilon	Helicobacter hepaticus
hac	Prokaryotes	Bacteria	Proteobacteria	Epsilon	Helicobacter acinonychis
wsu	Prokaryotes	Bacteria	Proteobacteria	Epsilon	Wolinella succinogenes
tdn	Prokaryotes	Bacteria	Proteobacteria	Epsilon	Thiomicrospira denitrificans
cje	Prokaryotes	Bacteria	Proteobacteria	Epsilon	Campylobacter jejuni NCTC11168
cjr	Prokaryotes	Bacteria	Proteobacteria	Epsilon	Campylobacter jejuni RM1221
cjj	Prokaryotes	Bacteria	Proteobacteria	Epsilon	Campylobacter jejuni 81-176
cff	Prokaryotes	Bacteria	Proteobacteria	Epsilon	Campylobacter fetus
gsu	Prokaryotes	Bacteria	Proteobacteria	Delta	Geobacter sulfurreducens
gme	Prokaryotes	Bacteria	Proteobacteria	Delta	Geobacter metallireducens
pca	Prokaryotes	Bacteria	Proteobacteria	Delta	Pelobacter carbinolicus
ppd	Prokaryotes	Bacteria	Proteobacteria	Delta	Pelobacter propionicus
dvu	Prokaryotes	Bacteria	Proteobacteria	Delta	Desulfovibrio vulgaris Hildenborough
dvl	Prokaryotes	Bacteria	Proteobacteria	Delta	Desulfovibrio vulgaris DP4
dde	Prokaryotes	Bacteria	Proteobacteria	Delta	Desulfovibrio desulfuricans
lip	Prokaryotes	Bacteria	Proteobacteria	Delta	Lawsonia intracellularis
bba	Prokaryotes	Bacteria	Proteobacteria	Delta	Bdellovibrio bacteriovorus
dps	Prokaryotes	Bacteria	Proteobacteria	Delta	Desulfotalea psychrophila
ade	Prokaryotes	Bacteria	Proteobacteria	Delta	Anaeromyxobacter dehalogenans
mxu	Prokaryotes	Bacteria	Proteobacteria	Delta	Myxococcus xanthus
sat	Prokaryotes	Bacteria	Proteobacteria	Delta	Syntrophus aciditrophicus
sfu	Prokaryotes	Bacteria	Proteobacteria	Delta	Syntrophobacter fumaroxidans
rpr	Prokaryotes	Bacteria	Proteobacteria	Alpha/rickettsias	Rickettsia prowazekii
rty	Prokaryotes	Bacteria	Proteobacteria	Alpha/rickettsias	Rickettsia typhi
rco	Prokaryotes	Bacteria	Proteobacteria	Alpha/rickettsias	Rickettsia conorii
rfe	Prokaryotes	Bacteria	Proteobacteria	Alpha/rickettsias	Rickettsia felis
rbe	Prokaryotes	Bacteria	Proteobacteria	Alpha/rickettsias	Rickettsia bellii
wol	Prokaryotes	Bacteria	Proteobacteria	Alpha/rickettsias	Wolbachia wMel
wbm	Prokaryotes	Bacteria	Proteobacteria	Alpha/rickettsias	Wolbachia wBm
ama	Prokaryotes	Bacteria	Proteobacteria	Alpha/rickettsias	Anaplasma marginale
aph	Prokaryotes	Bacteria	Proteobacteria	Alpha/rickettsias	Anaplasma phagocytophilum
eru	Prokaryotes	Bacteria	Proteobacteria	Alpha/rickettsias	Ehrlichia ruminantium Welgevonden (South Africa)
erw	Prokaryotes	Bacteria	Proteobacteria	Alpha/rickettsias	Ehrlichia ruminantium Welgevonden (France)

erg	Prokaryotes	Bacteria	Proteobacteria	Alpha/rickettsias	Ehrlichia ruminantium Gardel
ecn	Prokaryotes	Bacteria	Proteobacteria	Alpha/rickettsias	Ehrlichia canis
ech	Prokaryotes	Bacteria	Proteobacteria	Alpha/rickettsias	Ehrlichia chaffeensis
nse	Prokaryotes	Bacteria	Proteobacteria	Alpha/rickettsias	Neorickettsia sennetsu
pub	Prokaryotes	Bacteria	Proteobacteria	Alpha/rickettsias	Candidatus Pelagibacter ubique
mlo	Prokaryotes	Bacteria	Proteobacteria	Alpha/rhizobacteria	Mesorhizobium loti
mes	Prokaryotes	Bacteria	Proteobacteria	Alpha/rhizobacteria	Mesorhizobium sp. BNC1
sme	Prokaryotes	Bacteria	Proteobacteria	Alpha/rhizobacteria	Sinorhizobium meliloti
atu	Prokaryotes	Bacteria	Proteobacteria	Alpha/rhizobacteria	Agrobacterium tumefaciens C58 (UWash/Dupont)
atc	Prokaryotes	Bacteria	Proteobacteria	Alpha/rhizobacteria	Agrobacterium tumefaciens C58 (Cereon)
ret	Prokaryotes	Bacteria	Proteobacteria	Alpha/rhizobacteria	Rhizobium etli
rle	Prokaryotes	Bacteria	Proteobacteria	Alpha/rhizobacteria	Rhizobium leguminosarum
bme	Prokaryotes	Bacteria	Proteobacteria	Alpha/rhizobacteria	Brucella melitensis
bmf	Prokaryotes	Bacteria	Proteobacteria	Alpha/rhizobacteria	Brucella melitensis biovar Abortus
bms	Prokaryotes	Bacteria	Proteobacteria	Alpha/rhizobacteria	Brucella suis
bmb	Prokaryotes	Bacteria	Proteobacteria	Alpha/rhizobacteria	Brucella abortus
bj	Prokaryotes	Bacteria	Proteobacteria	Alpha/rhizobacteria	Bradyrhizobium japonicum
rpa	Prokaryotes	Bacteria	Proteobacteria	Alpha/rhizobacteria	Rhodopseudomonas palustris CGA009
rpb	Prokaryotes	Bacteria	Proteobacteria	Alpha/rhizobacteria	Rhodopseudomonas palustris HaA2
rpc	Prokaryotes	Bacteria	Proteobacteria	Alpha/rhizobacteria	Rhodopseudomonas palustris BisB18
rp	Prokaryotes	Bacteria	Proteobacteria	Alpha/rhizobacteria	Rhodopseudomonas palustris BisB5
rpe	Prokaryotes	Bacteria	Proteobacteria	Alpha/rhizobacteria	Rhodopseudomonas palustris BisA53
nwi	Prokaryotes	Bacteria	Proteobacteria	Alpha/rhizobacteria	Nitrobacter winogradskyi
nha	Prokaryotes	Bacteria	Proteobacteria	Alpha/rhizobacteria	Nitrobacter hamburgensis
bhe	Prokaryotes	Bacteria	Proteobacteria	Alpha/rhizobacteria	Bartonella henselae
bqu	Prokaryotes	Bacteria	Proteobacteria	Alpha/rhizobacteria	Bartonella quintana
bbk	Prokaryotes	Bacteria	Proteobacteria	Alpha/rhizobacteria	Bartonella bacilliformis
ccr	Prokaryotes	Bacteria	Proteobacteria	Alpha/others	Caulobacter crescentus
sil	Prokaryotes	Bacteria	Proteobacteria	Alpha/others	Silicibacter pomeroyi
sit	Prokaryotes	Bacteria	Proteobacteria	Alpha/others	Silicibacter sp. TM1040
rsp	Prokaryotes	Bacteria	Proteobacteria	Alpha/others	Rhodobacter sphaeroides 2.4.1
rsh	Prokaryotes	Bacteria	Proteobacteria	Alpha/others	Rhodobacter sphaeroides ATCC 17029
jan	Prokaryotes	Bacteria	Proteobacteria	Alpha/others	Jannaschia sp. CCS1
rde	Prokaryotes	Bacteria	Proteobacteria	Alpha/others	Roseobacter denitrificans
pde	Prokaryotes	Bacteria	Proteobacteria	Alpha/others	Paracoccus denitrificans
mmr	Prokaryotes	Bacteria	Proteobacteria	Alpha/others	Maricaulis maris
hne	Prokaryotes	Bacteria	Proteobacteria	Alpha/others	Hyphomonas neptunium
zmo	Prokaryotes	Bacteria	Proteobacteria	Alpha/others	Zymomonas mobilis
nar	Prokaryotes	Bacteria	Proteobacteria	Alpha/others	Novosphingobium aromaticivorans
sal	Prokaryotes	Bacteria	Proteobacteria	Alpha/others	Sphingopyxis alaskensis
eli	Prokaryotes	Bacteria	Proteobacteria	Alpha/others	Erythrobacter litoralis
gox	Prokaryotes	Bacteria	Proteobacteria	Alpha/others	Glucobacter oxydans
gbe	Prokaryotes	Bacteria	Proteobacteria	Alpha/others	Granulobacter thebesdensis
rru	Prokaryotes	Bacteria	Proteobacteria	Alpha/others	Rhodospirillum rubrum
mag	Prokaryotes	Bacteria	Proteobacteria	Alpha/others	Magnetospirillum magneticum
mgm	Prokaryotes	Bacteria	Proteobacteria	Magnetococcus	Magnetococcus sp. MC-1
aba	Prokaryotes	Bacteria	Acidobacteria	X	Acidobacteria bacterium
sus	Prokaryotes	Bacteria	Acidobacteria	X	Solibacter usitatus
bsu	Prokaryotes	Bacteria	Firmicutes	Bacillales	Bacillus subtilis
bha	Prokaryotes	Bacteria	Firmicutes	Bacillales	Bacillus halodurans
ban	Prokaryotes	Bacteria	Firmicutes	Bacillales	Bacillus anthracis Ames
bar	Prokaryotes	Bacteria	Firmicutes	Bacillales	Bacillus anthracis Ames 0581
baa	Prokaryotes	Bacteria	Firmicutes	Bacillales	Bacillus anthracis A2012
bat	Prokaryotes	Bacteria	Firmicutes	Bacillales	Bacillus anthracis Sterne
bce	Prokaryotes	Bacteria	Firmicutes	Bacillales	Bacillus cereus ATCC 14579
bca	Prokaryotes	Bacteria	Firmicutes	Bacillales	Bacillus cereus ATCC 10987
bcz	Prokaryotes	Bacteria	Firmicutes	Bacillales	Bacillus cereus ZK
bt	Prokaryotes	Bacteria	Firmicutes	Bacillales	Bacillus thuringiensis 97-27
bt	Prokaryotes	Bacteria	Firmicutes	Bacillales	Bacillus thuringiensis AI Hakam
bli	Prokaryotes	Bacteria	Firmicutes	Bacillales	Bacillus licheniformis ATCC 14580
bld	Prokaryotes	Bacteria	Firmicutes	Bacillales	Bacillus licheniformis DSM13
bcl	Prokaryotes	Bacteria	Firmicutes	Bacillales	Bacillus clausii
oih	Prokaryotes	Bacteria	Firmicutes	Bacillales	Oceanobacillus iheyensis
gka	Prokaryotes	Bacteria	Firmicutes	Bacillales	Geobacillus kaustophilus
sau	Prokaryotes	Bacteria	Firmicutes	Bacillales	Staphylococcus aureus N315
sav	Prokaryotes	Bacteria	Firmicutes	Bacillales	Staphylococcus aureus Mu50
sam	Prokaryotes	Bacteria	Firmicutes	Bacillales	Staphylococcus aureus MW2
sar	Prokaryotes	Bacteria	Firmicutes	Bacillales	Staphylococcus aureus MRSA252

sas	Prokaryotes	Bacteria	Firmicutes	Bacillales	Staphylococcus aureus MSSA476
sac	Prokaryotes	Bacteria	Firmicutes	Bacillales	Staphylococcus aureus COL
sab	Prokaryotes	Bacteria	Firmicutes	Bacillales	Staphylococcus aureus RF122
saa	Prokaryotes	Bacteria	Firmicutes	Bacillales	Staphylococcus aureus USA300
sao	Prokaryotes	Bacteria	Firmicutes	Bacillales	Staphylococcus aureus NCTC8325
sep	Prokaryotes	Bacteria	Firmicutes	Bacillales	Staphylococcus epidermidis ATCC 12228
ser	Prokaryotes	Bacteria	Firmicutes	Bacillales	Staphylococcus epidermidis RP62A
sha	Prokaryotes	Bacteria	Firmicutes	Bacillales	Staphylococcus haemolyticus
ssp	Prokaryotes	Bacteria	Firmicutes	Bacillales	Staphylococcus saprophyticus
lmo	Prokaryotes	Bacteria	Firmicutes	Bacillales	Listeria monocytogenes EGD-e
lmf	Prokaryotes	Bacteria	Firmicutes	Bacillales	Listeria monocytogenes F2365
lin	Prokaryotes	Bacteria	Firmicutes	Bacillales	Listeria innocua
lwe	Prokaryotes	Bacteria	Firmicutes	Bacillales	Listeria welshimeri SLCC5334
lla	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Lactococcus lactis subsp. lactis IL1403
llc	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Lactococcus lactis subsp. cremoris SK11
llm	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Lactococcus lactis subsp. cremoris MG1363
spy	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Streptococcus pyogenes SF370 (serotype M1)
spz	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Streptococcus pyogenes MGAS5005 (serotype M1)
spm	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Streptococcus pyogenes MGAS8232 (serotype M18)
spg	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Streptococcus pyogenes MGAS315 (serotype M3)
sps	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Streptococcus pyogenes SSI-1 (serotype M3)
sph	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Streptococcus pyogenes MGAS10270 (serotype M3)
spi	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Streptococcus pyogenes MGAS10750 (serotype M3)
spj	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Streptococcus pyogenes MGAS2096 (serotype M3)
spk	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Streptococcus pyogenes MGAS9429 (serotype M3)
spa	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Streptococcus pyogenes MGAS10394 (serotype M6)
spb	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Streptococcus pyogenes MGAS6180 (serotype M28)
spn	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Streptococcus pneumoniae TIGR4
spr	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Streptococcus pneumoniae R6
spd	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Streptococcus pneumoniae D39
sag	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Streptococcus agalactiae 2603 (serotype V)
san	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Streptococcus agalactiae NEM316 (serotype III)
sak	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Streptococcus agalactiae A909 (serotype Ia)
smu	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Streptococcus mutans
stc	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Streptococcus thermophilus CNRZ1066
stl	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Streptococcus thermophilus LMG18311
ste	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Streptococcus thermophilus LMD-9
ssa	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Streptococcus sanguinis
lpl	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Lactobacillus plantarum
ljo	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Lactobacillus johnsonii
lac	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Lactobacillus acidophilus
lsa	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Lactobacillus sakei
lsl	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Lactobacillus salivarius
ldb	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Lactobacillus delbrueckii ATCC 11842
lbu	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Lactobacillus delbrueckii ATCC BAA-365
lbr	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Lactobacillus brevis
lca	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Lactobacillus casei
lga	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Lactobacillus gasseri
ppe	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Pediococcus pentosaceus
efa	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Enterococcus faecalis
ooe	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Oenococcus oeni
lme	Prokaryotes	Bacteria	Firmicutes	Lactobacillales	Leuconostoc mesenteroides
cac	Prokaryotes	Bacteria	Firmicutes	Clostridia	Clostridium acetobutylicum
cpe	Prokaryotes	Bacteria	Firmicutes	Clostridia	Clostridium perfringens 13
cpf	Prokaryotes	Bacteria	Firmicutes	Clostridia	Clostridium perfringens ATCC 13124
cpr	Prokaryotes	Bacteria	Firmicutes	Clostridia	Clostridium perfringens SM101
ctc	Prokaryotes	Bacteria	Firmicutes	Clostridia	Clostridium tetani E88
cno	Prokaryotes	Bacteria	Firmicutes	Clostridia	Clostridium novyi
cth	Prokaryotes	Bacteria	Firmicutes	Clostridia	Clostridium thermocellum
cdf	Prokaryotes	Bacteria	Firmicutes	Clostridia	Clostridium difficile
chy	Prokaryotes	Bacteria	Firmicutes	Clostridia	Carboxydotherrmus hydrogenoformans
dsy	Prokaryotes	Bacteria	Firmicutes	Clostridia	Desulfotobacterium hafniense
swo	Prokaryotes	Bacteria	Firmicutes	Clostridia	Syntrophomonas wolfei
tte	Prokaryotes	Bacteria	Firmicutes	Clostridia	Thermoanaerobacter tengcongensis
mta	Prokaryotes	Bacteria	Firmicutes	Clostridia	Moorella thermoacetica
mge	Prokaryotes	Bacteria	Firmicutes	Mollicutes	Mycoplasma genitalium
mpn	Prokaryotes	Bacteria	Firmicutes	Mollicutes	Mycoplasma pneumoniae
mpu	Prokaryotes	Bacteria	Firmicutes	Mollicutes	Mycoplasma pulmonis

mpe	Prokaryotes	Bacteria	Firmicutes	Mollicutes	Mycoplasma penetrans
mga	Prokaryotes	Bacteria	Firmicutes	Mollicutes	Mycoplasma gallisepticum
mmy	Prokaryotes	Bacteria	Firmicutes	Mollicutes	Mycoplasma mycoides
mmo	Prokaryotes	Bacteria	Firmicutes	Mollicutes	Mycoplasma mobile
mhy	Prokaryotes	Bacteria	Firmicutes	Mollicutes	Mycoplasma hyopneumoniae 232
mhj	Prokaryotes	Bacteria	Firmicutes	Mollicutes	Mycoplasma hyopneumoniae J
mhp	Prokaryotes	Bacteria	Firmicutes	Mollicutes	Mycoplasma hyopneumoniae 7448
msy	Prokaryotes	Bacteria	Firmicutes	Mollicutes	Mycoplasma synoviae
mcp	Prokaryotes	Bacteria	Firmicutes	Mollicutes	Mycoplasma capricolum
uur	Prokaryotes	Bacteria	Firmicutes	Mollicutes	Ureaplasma urealyticum
poy	Prokaryotes	Bacteria	Firmicutes	Mollicutes	Phytoplasma OY
ayw	Prokaryotes	Bacteria	Firmicutes	Mollicutes	Phytoplasma AYWB
mfl	Prokaryotes	Bacteria	Firmicutes	Mollicutes	Mesoplasma florum
mtu	Prokaryotes	Bacteria	Actinobacteria	X	Mycobacterium tuberculosis H37Rv
mtc	Prokaryotes	Bacteria	Actinobacteria	X	Mycobacterium tuberculosis CDC1551
mbo	Prokaryotes	Bacteria	Actinobacteria	X	Mycobacterium bovis AF2122/97
mbb	Prokaryotes	Bacteria	Actinobacteria	X	Mycobacterium bovis BCG Pasteur 1173P2
mle	Prokaryotes	Bacteria	Actinobacteria	X	Mycobacterium leprae
mpa	Prokaryotes	Bacteria	Actinobacteria	X	Mycobacterium avium paratuberculosis
mav	Prokaryotes	Bacteria	Actinobacteria	X	Mycobacterium avium 104
mmc	Prokaryotes	Bacteria	Actinobacteria	X	Mycobacterium sp. MCS
mkm	Prokaryotes	Bacteria	Actinobacteria	X	Mycobacterium sp. KMS
msm	Prokaryotes	Bacteria	Actinobacteria	X	Mycobacterium smegmatis
mul	Prokaryotes	Bacteria	Actinobacteria	X	Mycobacterium ulcerans
mva	Prokaryotes	Bacteria	Actinobacteria	X	Mycobacterium vanbaalenii
mjl	Prokaryotes	Bacteria	Actinobacteria	X	Mycobacterium sp. JLS
cgl	Prokaryotes	Bacteria	Actinobacteria	X	Corynebacterium glutamicum (Kyowa Hakko)
cgb	Prokaryotes	Bacteria	Actinobacteria	X	Corynebacterium glutamicum (Bielefeld)
cef	Prokaryotes	Bacteria	Actinobacteria	X	Corynebacterium efficiens
cdi	Prokaryotes	Bacteria	Actinobacteria	X	Corynebacterium diphtheriae
cjk	Prokaryotes	Bacteria	Actinobacteria	X	Corynebacterium jeikeium
nfa	Prokaryotes	Bacteria	Actinobacteria	X	Nocardia farcinica
rha	Prokaryotes	Bacteria	Actinobacteria	X	Rhodococcus sp. RHA1
sco	Prokaryotes	Bacteria	Actinobacteria	X	Streptomyces coelicolor
sma	Prokaryotes	Bacteria	Actinobacteria	X	Streptomyces avermitilis
twh	Prokaryotes	Bacteria	Actinobacteria	X	Tropheryma whipplei Twist
tws	Prokaryotes	Bacteria	Actinobacteria	X	Tropheryma whipplei TW08/27
lxx	Prokaryotes	Bacteria	Actinobacteria	X	Leifsonia xyli xyli CTCB07
art	Prokaryotes	Bacteria	Actinobacteria	X	Arthrobacter sp. FB24
aau	Prokaryotes	Bacteria	Actinobacteria	X	Arthrobacter aurescens
pac	Prokaryotes	Bacteria	Actinobacteria	X	Propionibacterium acnes
nca	Prokaryotes	Bacteria	Actinobacteria	X	Nocardioides sp. JS614
tfu	Prokaryotes	Bacteria	Actinobacteria	X	Thermobifida fusca
fra	Prokaryotes	Bacteria	Actinobacteria	X	Frankia sp. Ccl3
fal	Prokaryotes	Bacteria	Actinobacteria	X	Frankia alni
ace	Prokaryotes	Bacteria	Actinobacteria	X	Acidothermus cellulolyticus
blo	Prokaryotes	Bacteria	Actinobacteria	X	Bifidobacterium longum
bad	Prokaryotes	Bacteria	Actinobacteria	X	Bifidobacterium adolescentis
sth	Prokaryotes	Bacteria	Actinobacteria	X	Symbiobacterium thermophilum
rxu	Prokaryotes	Bacteria	Actinobacteria	X	Rubrobacter xylanophilus
fnu	Prokaryotes	Bacteria	Fusobacteria	X	Fusobacterium nucleatum
rba	Prokaryotes	Bacteria	Planctomyces	X	Rhodopirellula baltica
ctr	Prokaryotes	Bacteria	Chlamydia	X	Chlamydia trachomatis serovar D
cta	Prokaryotes	Bacteria	Chlamydia	X	Chlamydia trachomatis serovar A
cmu	Prokaryotes	Bacteria	Chlamydia	X	Chlamydia muridarum
cpn	Prokaryotes	Bacteria	Chlamydia	X	Chlamydomphila pneumoniae CWL029
cpa	Prokaryotes	Bacteria	Chlamydia	X	Chlamydomphila pneumoniae AR39
cpj	Prokaryotes	Bacteria	Chlamydia	X	Chlamydomphila pneumoniae J138
cpt	Prokaryotes	Bacteria	Chlamydia	X	Chlamydomphila pneumoniae TW183
cca	Prokaryotes	Bacteria	Chlamydia	X	Chlamydomphila caviae
cab	Prokaryotes	Bacteria	Chlamydia	X	Chlamydomphila abortus
cfe	Prokaryotes	Bacteria	Chlamydia	X	Chlamydomphila felis
pcu	Prokaryotes	Bacteria	Chlamydia	X	Candidatus Protochlamydia amoebophila
bbu	Prokaryotes	Bacteria	Spirochete	X	Borrelia burgdorferi
bga	Prokaryotes	Bacteria	Spirochete	X	Borrelia garinii
baf	Prokaryotes	Bacteria	Spirochete	X	Borrelia afzelii
tpa	Prokaryotes	Bacteria	Spirochete	X	Treponema pallidum
tde	Prokaryotes	Bacteria	Spirochete	X	Treponema denticola

lil	Prokaryotes	Bacteria	Spirochete	X	Leptospira interrogans serovar lai
lic	Prokaryotes	Bacteria	Spirochete	X	Leptospira interrogans serovar Copenhageni
ljb	Prokaryotes	Bacteria	Spirochete	X	Leptospira borgpetersenii JB197
lbl	Prokaryotes	Bacteria	Spirochete	X	Leptospira borgpetersenii L550
syn	Prokaryotes	Bacteria	Cyanobacteria	X	Synechocystis sp. PCC6803
syw	Prokaryotes	Bacteria	Cyanobacteria	X	Synechococcus sp. WH8102
syc	Prokaryotes	Bacteria	Cyanobacteria	X	Synechococcus elongatus PCC6301
syf	Prokaryotes	Bacteria	Cyanobacteria	X	Synechococcus elongatus PCC7942
syd	Prokaryotes	Bacteria	Cyanobacteria	X	Synechococcus sp. CC9605
sye	Prokaryotes	Bacteria	Cyanobacteria	X	Synechococcus sp. CC9902
syg	Prokaryotes	Bacteria	Cyanobacteria	X	Synechococcus sp. CC9311
cya	Prokaryotes	Bacteria	Cyanobacteria	X	Cyanobacteria Yellowstone A-Prime
cyb	Prokaryotes	Bacteria	Cyanobacteria	X	Cyanobacteria Yellowstone B-Prime
tel	Prokaryotes	Bacteria	Cyanobacteria	X	Thermosynechococcus elongatus
gvi	Prokaryotes	Bacteria	Cyanobacteria	X	Gloeobacter violaceus
ana	Prokaryotes	Bacteria	Cyanobacteria	X	Anabaena sp. PCC7120
ava	Prokaryotes	Bacteria	Cyanobacteria	X	Anabaena variabilis
pma	Prokaryotes	Bacteria	Cyanobacteria	X	Prochlorococcus marinus SS120
pmm	Prokaryotes	Bacteria	Cyanobacteria	X	Prochlorococcus marinus MED4
pmt	Prokaryotes	Bacteria	Cyanobacteria	X	Prochlorococcus marinus MIT9313
pmn	Prokaryotes	Bacteria	Cyanobacteria	X	Prochlorococcus marinus NATL2A
pmi	Prokaryotes	Bacteria	Cyanobacteria	X	Prochlorococcus marinus MIT9312
pmb	Prokaryotes	Bacteria	Cyanobacteria	X	Prochlorococcus marinus AS9601
pmc	Prokaryotes	Bacteria	Cyanobacteria	X	Prochlorococcus marinus MIT 9515
pmf	Prokaryotes	Bacteria	Cyanobacteria	X	Prochlorococcus marinus MIT 9303
pmg	Prokaryotes	Bacteria	Cyanobacteria	X	Prochlorococcus marinus MIT 9301
pme	Prokaryotes	Bacteria	Cyanobacteria	X	Prochlorococcus marinus NATL1A
ter	Prokaryotes	Bacteria	Cyanobacteria	X	Trichodesmium erythraeum
bth	Prokaryotes	Bacteria	Bacteroides	X	Bacteroides thetaiotaomicron
bfr	Prokaryotes	Bacteria	Bacteroides	X	Bacteroides fragilis YCH46
bfs	Prokaryotes	Bacteria	Bacteroides	X	Bacteroides fragilis NCTC9343
pgi	Prokaryotes	Bacteria	Bacteroides	X	Porphyromonas gingivalis
sru	Prokaryotes	Bacteria	Bacteroides	X	Salinibacter ruber
chu	Prokaryotes	Bacteria	Bacteroides	X	Cytophaga hutchinsonii
gfo	Prokaryotes	Bacteria	Bacteroides	X	Gramella forsetii
cte	Prokaryotes	Bacteria	Green sulfur bacter	X	Chlorobium tepidum
cch	Prokaryotes	Bacteria	Green sulfur bacter	X	Chlorobium chlorochromatii
cph	Prokaryotes	Bacteria	Green sulfur bacter	X	Chlorobium phaeobacteroides
plt	Prokaryotes	Bacteria	Green sulfur bacter	X	Pelodictyon luteolum
det	Prokaryotes	Bacteria	Green nonsulfur ba	X	Dehalococcoides ethenogenes
deh	Prokaryotes	Bacteria	Green nonsulfur ba	X	Dehalococcoides CBDB1
dra	Prokaryotes	Bacteria	Deinococcus-Therr	X	Deinococcus radiodurans
dge	Prokaryotes	Bacteria	Deinococcus-Therr	X	Deinococcus geothermalis
tth	Prokaryotes	Bacteria	Deinococcus-Therr	X	Thermus thermophilus HB27
tth	Prokaryotes	Bacteria	Deinococcus-Therr	X	Thermus thermophilus HB8
aae	Prokaryotes	Bacteria	Hyperthermophilic I	X	Aquifex aeolicus
tma	Prokaryotes	Bacteria	Hyperthermophilic I	X	Thermotoga maritima
mja	Prokaryotes	Archaea	Euryarchaeota	X	Methanococcus jannaschii
mmp	Prokaryotes	Archaea	Euryarchaeota	X	Methanococcus maripaludis
mac	Prokaryotes	Archaea	Euryarchaeota	X	Methanosarcina acetivorans
mba	Prokaryotes	Archaea	Euryarchaeota	X	Methanosarcina barkeri
mma	Prokaryotes	Archaea	Euryarchaeota	X	Methanosarcina mazei
mbu	Prokaryotes	Archaea	Euryarchaeota	X	Methanococcoides burtonii
mtp	Prokaryotes	Archaea	Euryarchaeota	X	Methanosaeta thermophila
mhu	Prokaryotes	Archaea	Euryarchaeota	X	Methanospirillum hungatei
mha	Prokaryotes	Archaea	Euryarchaeota	X	Methanocorpusculum labreanum
mem	Prokaryotes	Archaea	Euryarchaeota	X	Methanoculleus marisnigri
mth	Prokaryotes	Archaea	Euryarchaeota	X	Methanobacterium thermoautotrophicum
mst	Prokaryotes	Archaea	Euryarchaeota	X	Methanosphaera stadtmanae
mka	Prokaryotes	Archaea	Euryarchaeota	X	Methanopyrus kandleri
afu	Prokaryotes	Archaea	Euryarchaeota	X	Archaeoglobus fulgidus
hal	Prokaryotes	Archaea	Euryarchaeota	X	Halobacterium sp. NRC-1
hma	Prokaryotes	Archaea	Euryarchaeota	X	Haloarcula marismortui
hwa	Prokaryotes	Archaea	Euryarchaeota	X	Haloquadratum walsbyi
nph	Prokaryotes	Archaea	Euryarchaeota	X	Natronomonas pharaonis
tac	Prokaryotes	Archaea	Euryarchaeota	X	Thermoplasma acidophilum
tvo	Prokaryotes	Archaea	Euryarchaeota	X	Thermoplasma volcanium
pto	Prokaryotes	Archaea	Euryarchaeota	X	Picrophilus torridus

pho	Prokaryotes	Archaea	Euryarchaeota	X	Pyrococcus horikoshii
pab	Prokaryotes	Archaea	Euryarchaeota	X	Pyrococcus abyssi
pfu	Prokaryotes	Archaea	Euryarchaeota	X	Pyrococcus furiosus
tko	Prokaryotes	Archaea	Euryarchaeota	X	Thermococcus kodakaraensis
ape	Prokaryotes	Archaea	Crenarchaeota	X	Aeropyrum pernix
smr	Prokaryotes	Archaea	Crenarchaeota	X	Staphylothermus marinus
hbu	Prokaryotes	Archaea	Crenarchaeota	X	Hyperthermus butylicus
ssu	Prokaryotes	Archaea	Crenarchaeota	X	Sulfolobus solfataricus
sto	Prokaryotes	Archaea	Crenarchaeota	X	Sulfolobus tokodaii
sai	Prokaryotes	Archaea	Crenarchaeota	X	Sulfolobus acidocaldarius
pai	Prokaryotes	Archaea	Crenarchaeota	X	Pyrobaculum aerophilum
pis	Prokaryotes	Archaea	Crenarchaeota	X	Pyrobaculum islandicum
pcl	Prokaryotes	Archaea	Crenarchaeota	X	Pyrobaculum calidifontis
tpe	Prokaryotes	Archaea	Crenarchaeota	X	Thermofilum pendens
neq	Prokaryotes	Archaea	Nanoarchaeota	X	Nanoarchaeum equitans