

**Table S1** Eubacteria and archaea used for the construction of phylogenetic tree along with their ribosomal database project (RDP) ids.

<b>Eubacteria (452 organisms)</b>	<b>RDP id</b>
<i>Acaryochloris marina</i> MBIC11017 AB058298	S000268532
<i>Acholeplasma laidlawii</i> T PG8 ATCC 23206 U14905	S000437171
<i>Acidiphilium cryptum</i> T ATCC 33463 D30773	S000413728
<i>Acidithiobacillus ferrooxidans</i> DSM9465 NFe4 Y11595	S000017846
<i>Acidovorax citrulli</i> T ATCC 29625 AF078761	S000428517
<i>Acidovorax</i> sp 98-63833 AY258065	S000404806
<i>Acinetobacter baumannii</i> T DSM 30007 X81660	S000012980
<i>Actinobacillus succinogenes</i> T 130Z AF024525	S000427736
<i>Aeromonas hydrophila</i> subsp <i>hydrophila</i> T ATCC 7966T X74677	S000016358
<i>Aeromonas salmonicida</i> subsp <i>salmonicida</i> T ATCC 27013T X74680	S000000394
<i>Akkermansia muciniphila</i> Muc AY271254	S000460661
<i>Alcanivorax borkumensis</i> T Sk2 Y12579	S000018396
<i>Aliivibrio fischeri</i> T ATCC774T X74702	S000006317
<i>Aliivibrio salmonicida</i> T NCMB 2262 X70643	S000007404
<i>Alkalilimnicola ehrlichii</i> MLHE-1 AF406554	S000393265
<i>Alkaliphilus metalliredigens</i> QYMF CP000724	S000891554
<i>Alkaliphilus oremlandii</i> OhILAs CP000853	S000942093
<i>Alteromonas macleodii</i> T DSM 6062 Y18228	S000014590
<i>Anabaena variabilis</i> IAM M-204 AB074502	S000112413
<i>Anaerocellum thermophilum</i> Z-1203 L09180	S000414358
<i>Anaeromyxobacter dehalogenans</i> T 2CP-1 ATCC BAA-258 AF382396	S000392790
<i>Anaplasma marginale</i> T AF311303	S000391339
<i>Anaplasma phagocytophilum</i> T CAMAWI AF172167	S000388561
<i>Anoxybacillus flavithermus</i> T DSM 2641 Z26932	S000001145
<i>Aquifex aeolicus</i> VF5 AJ309733	S000263494
<i>Arcobacter butzleri</i> ATCC 49616 AY621116	S000332554
<i>Aromatoleum aromaticum</i> EbN1 CR555306	S000528908
<i>Arthrobacter aurescens</i> T DSM20116 X83405	S000002956
<i>Arthrobacter chlorophenolicus</i> T A-6 AF102267	S000428904
<i>Aster yellows phytoplasma</i> A 99UW111 AF268408	S000000688
<i>Azoarcus</i> sp LU1 AJ007007	S000002684
<i>Azorhizobium caulinodans</i> T LMG 6465 X67221	S000364327
<i>Bacillus amyloliquefaciens</i> T ATCC 23350 X60605	S000129463
<i>Bacillus anthracis</i> me-12 EU652063	S001098776
<i>Bacillus clausii</i> T DSM 8716 X76440	S000003470
<i>Bacillus cytotoxicus</i> CVUAS 2979 08L 12456 004 1 EU888300	S001240936
<i>Bacillus halodurans</i> T DSM 497T AJ302709	S000010351
<i>Bacillus licheniformis</i> T DSM 13 X68416	S000006574
<i>Bacillus pumilus</i> T DSMZ27 AY456263	S000378387
<i>Bacillus subtilis</i> subsp <i>subtilis</i> T DSM10 AJ276351	S000003473
<i>Bacillus thuringiensis</i> T ATCC10792 AF290545	S000021267
<i>Bacillus weihenstephanensis</i> T DSM11821 AB021199	S000016288
<i>Bacteroides fragilis</i> T ATCC 25285T 1 X83935	S000015672
<i>Bacteroides thetaiotaomicron</i> T L16489	S000414472
<i>Bacteroides vulgatus</i> T M58762	S000436356

<i>Bartonella bacilliformis</i> T ATCC 35685 pBart 84-1 Z11683	S000000975
<i>Bartonella henselae</i> M73229	S000002769
<i>Bartonella quintana</i> Fuller M73228	S000015400
<i>Bartonella tribocorum</i> T IBS 506 AJ003070	S000012687
<i>Baumannia cicadellinicola</i> AF465795	S000394582
<i>Bdellovibrio bacteriovorus</i> T HD 100 DSM 50701 AJ292759	S000130039
<i>Beijerinckia indica</i> subsp <i>indica</i> T M59060	S000436435
<i>Bifidobacterium adolescentis</i> T M58729	S000436340
<i>Bifidobacterium animalis</i> subsp <i>animalis</i> T ATCC 25527 X70971	S000006180
<i>Bifidobacterium longum</i> biovar <i>Longum</i> T M58739	S000436350
<i>Bordetella avium</i> T ATCC 35086 U04947	S000437034
<i>Bordetella bronchiseptica</i> T ATCC 19395 U04948	S000437035
<i>Bordetella parapertussis</i> T ATCC 15311 U04949	S000437036
<i>Bordetella pertussis</i> T ATCC 9797 U04950	S000437037
<i>Bordetella petrii</i> T DSM 12804 Se-1111R AJ249861	S000009593
<i>Borrelia burgdorferi</i> T M59293	S000436531
<i>Borrelia duttonii</i> VS4 AB113315	S000364601
<i>Borrelia garinii</i> isolate Fis01 AJ009751	S000000042
<i>Borrelia hermsii</i> SB82 AF228031	S000001129
<i>Borrelia recurrentis</i> A4 AF107356	S000429012
<i>Borrelia turicatae</i> M2007 U42299	S000437624
<i>Brachyspira hyodysenteriae</i> T B78 M57743	S000436335
<i>Bradyrhizobium japonicum</i> T USDA 6 3I1b6 ATCC10324 SEMIA 5052 RCR 3425 ACCC 15032 original isolate received by USDA from Dr K Aso U69638	S000438365
<i>Bradyrhizobium</i> sp BTA-1 T AJ558025	S000270387
<i>Brucella melitensis</i> biovar <i>Abortus</i> 2002013043 AY513560	S000369352
<i>Brucella melitensis</i> biovar <i>Canis</i> 2000032907 AY513510	S000369302
<i>Brucella melitensis</i> biovar <i>Ovis</i> 2002013049 AY513525	S000369317
<i>Brucella melitensis</i> biovar <i>Suis</i> 1997000956 AY513553	S000369345
<i>Brucella melitensis</i> T L26166	S000414547
<i>Buchnera aphidicola</i> T M63246	S000436613
<i>Burkholderia ambifaria</i> MVPC14 AY028444	S000434597
<i>Burkholderia cenocepacia</i> T LMG 16656 AF148556	S000388165
<i>Burkholderia multivorans</i> T LMG 13010T Y18703	S000017474
<i>Burkholderia phymatum</i> T STM815 AJ302312	S000130044
<i>Burkholderia phytofirmans</i> T PsJN AY497470	S000540546
<i>Burkholderia pseudomallei</i> T ATCC 23343 DQ108392	S000711758
<i>Burkholderia</i> sp CHNCT10 EF471225	S000843456
<i>Burkholderia thailandensis</i> T E264 U91838	S000438836
<i>Burkholderia vietnamiensis</i> T AMMD AF043302	S000428013
<i>Burkholderia xenovorans</i> T LB400 U86373	S000469110
<i>Caldanaerobacter subterraneus</i> subsp <i>tengcongensis</i> T MB4 AF209708	S000389130
<i>Caldicellulosiruptor saccharolyticus</i> Tok7B1 AF130258	S000004674
<i>Campylobacter concisus</i> T L04322	S000414274
<i>Campylobacter fetus</i> subsp <i>fetus</i> T L04314	S000414266
<i>Campylobacter hominis</i> T NCTC 13146 CH001A AJ251584	S000004853
<i>Campylobacter jejuni</i> subsp <i>jejuni</i> T L14630	S000414431
<i>Campylobacter lari</i> subsp <i>lari</i> T CCUG 23947 L04316	S000414268
<i>Candidatus Amoebophilus asiaticus</i> AF366581	S000499364
<i>Candidatus Azobacteroides pseudotrichonymphae</i> genomovar CFP2 AP010656	S001198291

<i>Candidatus Blochmannia herculeanus</i> USA AJ250715	S000018001
<i>Candidatus Carsonella ruddii</i> AF211130	S000389158
<i>Candidatus Desulforudis audaxviator</i> MP104C CP000860	S001014380
<i>Candidatus Koribacter versatilis</i> Ellin345 CP000360	S000690634
<i>Candidatus Pelagibacter ubique</i> HTCC1062 AF510191	S000430652
<i>Candidatus Phytoplasma ulmi</i> T EY1 AY197655	S000356576
<i>Candidatus Protochlamydia amoebophila</i> UWE25 BX908798	S000528638
<i>Candidatus Ruthia magnifica</i> str Cm Calyptogena magnifica CP000488	S000768672
<i>Candidatus Sulcia muelleri</i> Cerc3 DQ066629	S000624822
<i>Candidatus Vesicomysocius okutanii</i> HA AP009247	S000858629
<i>Caulobacter</i> sp MCS23 AJ227807	S000112628
<i>Caulobacter vibrioides</i> T ATCC 15252T AJ227756	S000112511
<i>Cellvibrio japonicus</i> T NCIMB 10462 NCDO 2697 AF452103	S000394396
<i>Chlamydia muridarum</i> T MoPnWiess-Nigg D85718	S000435880
<i>Chlamydia trachomatis</i> T HAR-13 D89067	S000414224
<i>Chlamydia abortus</i> T OvB577 ATCC VR656 D85709	S000414096
<i>Chlamydia caviae</i> T GpIc ATCC VR813 D85708	S000435878
<i>Chlamydia felis</i> T FePn-1 ATCC VR120 D85701	S000435877
<i>Chlamydia pneumoniae</i> T Z49873	S000017485
<i>Chlorobaculum tepidum</i> T M58468	S000622337
<i>Chlorobium chlorochromatii</i> CaD AJ578461	S000366609
<i>Chlorobium luteolum</i> DSM 273 CP000096	S000610891
<i>Chlorobium phaeobacteroides</i> T 2430 Y08104	S000137974
<i>Chlorobium phaeovibrioides</i> T 2631 Y08105	S000136880
<i>Chloroflexus aggregans</i> T MD-66 D32255	S000482831
<i>Chloroflexus aurantiacus</i> T J-10-fl D38365	S000482832
<i>Chloroflexus</i> sp 396-1 AJ308498	S000020381
<i>Chloroherpeton thalassium</i> AF170103	S000011521
<i>Chromobacterium violaceum</i> T M22510	S000436064
<i>Citrobacter koseri</i> T CDC 3613-63 AF025372	S000427778
<i>Clavibacter michiganensis</i> subsp tessellarius T ATCC 33566 U96181	S000438891
<i>Clostridium beijerinckii</i> T DSM791 X68179	S000014607
<i>Clostridium botulinum</i> A T L37585	S000414699
<i>Clostridium cellulolyticum</i> T ATCC 35319 X71847	S000007743
<i>Clostridium difficile</i> T DSM 11209 X73450	S000260455
<i>Clostridium novyi</i> T L37594	S000414708
<i>Clostridium perfringens</i> T M59103	S000436468
<i>Clostridium phytofermentans</i> ISDg ATCC 700394 AF020431	S000387174
<i>Clostridium tetani</i> T NCTC 279 X74770	S000260778
<i>Clostridium thermocellum</i> T L09173	S000414351
<i>Colwellia psychrerythraea</i> T ATCC27364 ACAM 550T AF001375	S000386862
<i>Coprothermobacter proteolyticus</i> T ATCC 35245 X69335	S000127397
<i>Corynebacterium aurimucosum</i> T type strain IMMIB D-1488 DSM 44532 NRRL B-24143 AJ309207	S000366396
<i>Corynebacterium diphtheriae</i> T CCUG 2708 X81911	S000002705
<i>Corynebacterium efficiens</i> T YS-314 AB055963	S000383775
<i>Corynebacterium glutamicum</i> T type strain DSM20300 X80629	S000364384
<i>Corynebacterium jeikeium</i> T ATCC 43734 U87823	S000005844
<i>Corynebacterium urealyticum</i> T ATCC 43042T X81913	S000003489
<i>Coxiella burnetii</i> S4 Y11501	S000009213
<i>Cronobacter sakazakii</i> T JCM1233 AB004746	S000381741

<i>Cupriavidus metallidurans</i> CH34 CP000353	S000653107
<i>Cupriavidus necator</i> H16 AM260479	S000730503
<i>Cupriavidus taiwanensis</i> T LMG 19424 AF300324	S001171508
<i>Cytophaga hutchinsonii</i> T M58768	S000436362
<i>Dechloromonas aromatica</i> RCB AY032610	S000434660
<i>Dehalococcoides ethenogenes</i> strain 195 AF004928	S000386912
<i>Dehalococcoides</i> sp BHI80-52 AJ431247	S000128545
<i>Deinococcus deserti</i> T VCD115 AY876378	S000481081
<i>Deinococcus geothermalis</i> T AG-3aT Y13038	S000003901
<i>Deinococcus radiodurans</i> T DSM 20539T Y11332	S000009620
<i>Delftia acidovorans</i> T IAM 12409T AB021417	S000010699
<i>Desulfatibacillum alkenivorans</i> T PF2803 AY493562	S000420138
<i>Desulfobacterium hafniense</i> T DCB-2 X94975	S000001583
<i>Desulfococcus oleovorans</i> Hxd3 CP000859	S000965220
<i>Desulfotalea psychrophila</i> T LSv54 AF099062	S000428875
<i>Desulfotomaculum reducens</i> MI-1 U95951	S000438890
<i>Desulfovibrio desulfuricans</i> subsp <i>desulfuricans</i> T Essex 6 ATCC29577 AF192153	S000006150
<i>Diaphorobacter</i> sp PCA039 AY559251	S000413172
<i>Dictyoglomus thermophilum</i> T DSM 3960 T X69194	S000010022
<i>Dictyoglomus turgidum</i> DSM 6724 CP001251	S001239450
<i>Dinoroseobacter shibae</i> T type strain DFL 12 AJ534211	S000543935
<i>Ehrlichia canis</i> T 611 U26740	S000437402
<i>Ehrlichia chaffeensis</i> T 91HE17 U23503	S000437299
<i>Ehrlichia ruminantium</i> T Ball3 U03777	S000437009
<i>Elusimicrobium minutum</i> Pei191 CP001055	S001094702
<i>Ensifer medicae</i> T2 EU928875	S001169481
<i>Ensifer meliloti</i> T LMG 6133 X67222	S000364328
<i>Erwinia tasmaniensis</i> type strain Et199 AM055716	S000629150
<i>Erythrobacter litoralis</i> T DSM8509T AB013354	S000004181
<i>Escherichia coli</i> T ATCC 11775T X80725	S000004313
<i>Escherichia fergusonii</i> T ATCC 35469 AF530475	S000139289
<i>Fervidobacterium nodosum</i> T M59177	S000007611
<i>Fingoldia magna</i> T ATCC 15794 GIFU 7881 D14149	S000995192
<i>Flavobacterium johnsoniae</i> T M59051	S000436431
<i>Francisella novicida</i> RB401 EU365864	S001240435
<i>Francisella philomiragia</i> T type strain ATCC 25015 AJ698862	S000352704
<i>Francisella tularensis</i> T lvs ATCC 6223 FSC 155 Z21931	S000128268
<i>Fusobacterium nucleatum</i> subsp <i>nucleatum</i> ATCC 25586T AJ133496	S000005859
<i>Gemmatimonas aurantiaca</i> T T-27 AB072735	S000251887
<i>Geobacillus kaustophilus</i> T NCIMB 8547 X60618	S000128486
<i>Geobacillus thermodenitrificans</i> T DSM 465 Z26928	S000004284
<i>Geobacter bemidjiensis</i> T Bem AY187307	S000571800
<i>Geobacter lovleyi</i> SZ AY914177	S000490893
<i>Geobacter metallireducens</i> T GS-15 L07834	S000414324
<i>Geobacter</i> sp CdA-2 Y19190	S000005862
<i>Geobacter sulfurreducens</i> T PCA U13928	S000437158
<i>Geobacter uraniireducens</i> Rf4 CP000698	S000858727
<i>Gloeobacter violaceus</i> PCC 7421 AF132790	S000387822
<i>Gluconacetobacter diazotrophicus</i> T ATCC49037 LMG7603 X75618	S000011481
<i>Gluconobacter oxydans</i> T DSM 3503 X73820	S000014972

<i>Gramella forsetii</i> KT0803 CU207366	S000750131
<i>Granulibacter bethesdensis</i> CGDNIH1 AY788950	S000610642
<i>Haemophilus ducreyi</i> T M75078	S000436707
<i>Haemophilus influenzae</i> T M35019	S000436254
<i>Haemophilus parasuis</i> T M75065	S000436694
<i>Haemophilus somnus</i> 129PT CP000436	S000730530
<i>Hahella chejuensis</i> T KCTC 2396 AF195410	S000388921
<i>Halothermothrix orenii</i> T L22016	S000414511
<i>Helicobacter acinonychis</i> T Eaton 90-119-3 M88148	S000363188
<i>Helicobacter hepaticus</i> T Hh-2 U07574	S000334525
<i>Helicobacter pylori</i> T 11637 NCTC Type strain Z25741	S000014640
<i>Heliobacterium modesticaldum</i> T Ice1 U14559	S000437162
<i>Hermiimonas arsenicoxydans</i> ULPAs1 AY728038	S000453533
<i>Hydrogenobaculum</i> sp NOR3L3B AJ320225	S000104648
<i>Hyphomonas neptunium</i> T LE-670 AF082798	S000428575
<i>Idiomarina loihiensis</i> T L2-TR AF288370	S000340900
<i>Kineococcus radiotolerans</i> T SRS30216 AF247813	S000390051
<i>Klebsiella pneumoniae</i> T ATCC13883T Y17656	S000001991
<i>Kocuria rhizophila</i> T TA68 DSM 11926 type strain Y16264	S000008149
<i>Lactobacillus acidophilus</i> NCDO 1748 T X61138	S000015716
<i>Lactobacillus brevis</i> NCDO 1749 T X61134	S000002726
<i>Lactobacillus casei</i> NCDO 161 T X61135	S000014980
<i>Lactobacillus fermentum</i> NCDO 1750 T X61142	S000012733
<i>Lactobacillus gasserii</i> NCDO 2233 T X61137	S000010822
<i>Lactobacillus helveticus</i> NCDO 2712 T X61141	S000008891
<i>Lactobacillus johnsonii</i> T ATCC 33200 T AJ002515	S000006242
<i>Lactobacillus plantarum</i> T JCM 1149 D79210	S000413946
<i>Lactobacillus reuteri</i> T L23507	S000414529
<i>Lactobacillus sakei</i> subsp <i>carneus</i> T CCUG 34545 AY204889	S000417782
<i>Lactobacillus salivarius</i> T ATCC 11741 AF089108	S001168699
<i>Lactococcus lactis</i> subsp <i>cremoris</i> T M58836	S000436427
<i>Laribacter hongkongensis</i> T HKU1 AF389085	S000392882
<i>Lawsonia intracellularis</i> T NCTC 12657 U30147	S000437459
<i>Legionella pneumophila</i> T M59157	S000436520
<i>Leifsonia xyli</i> subsp <i>cynodontis</i> T JCM 9733 AB016985	S000427553
<i>Leptospira biflexa</i> T patoc Patoc 1 Z12821	S000127934
<i>Leptospira borgpetersenii</i> T JAVANICA VELDRAT BATAVIA 46 Z21630	S000006243
<i>Leptospira interrogans</i> T icterohaemorrhagiae RGA Z12817	S000126674
<i>Leptothrix cholodnii</i> CCM 1827 X97070	S000009647
<i>Leuconostoc citreum</i> NCFB 2787 X53963	S000134293
<i>Leuconostoc mesenteroides</i> subsp <i>cremoris</i> T M23034	S000436076
<i>Listeria innocua</i> T ATCC33090 X98527	S000005872
<i>Listeria monocytogenes</i> T NCTC10357 X56153	S000131236
<i>Listeria welshimeri</i> T ATCC35897 X98532	S000013094
<i>Lysinibacillus sphaericus</i> T L14010	S000414413
<i>Macrococcus caseolyticus</i> T ATCC 13548 MAFF 911387 D83359	S000413960
<i>Magnetococcus</i> sp MC-1 CP000471	S000750109
<i>Mannheimia succiniciproducens</i> 55E AY029193	S000434606
<i>Maricaulis maris</i> T ATCC 15268 T AJ007807	S000013061
<i>Marinobacter hydrocarbonoclasticus</i> VT8 CP000514	S000775655

<i>Marinomonas</i> sp CK13 T AJ833000	S000417331
<i>Mesoplasma</i> florum T L1 ATCC 33453 AF300327	S000390947
<i>Mesorhizobium</i> loti T ATCC 33669 D14514	S000380772
<i>Mesorhizobium</i> sp BNC1 CP000390	S000711611
<i>Methylacidiphilum</i> inferorum V4 CP000975	S001044267
<i>Methylibium</i> petroleiphilum PM1 T AF176594	S000388643
<i>Methylobacillus</i> flagellatus T M95651	S000436929
<i>Methylobacterium</i> extorquens CM4 T AF198624	S000388994
<i>Methylobacterium</i> extorquens PA1 CP000908	S000979499
<i>Methylobacterium</i> nodulans T ORS 2060 AF220763	S000483600
<i>Methylobacterium</i> populi T BJ001 ATCC BAA-705 NCIMB 13946 AY251818	S000368128
<i>Methylobacterium</i> radiotolerans T JCM 2831 D32227	S000469013
<i>Methylocella</i> silvestris T BL2 AJ491847	S000146627
<i>Methylococcus</i> capsulatus T sspACM 1292 ATCC 19069 NCIMB 11853 strTexas X72770	S000002740
<i>Microcystis</i> aeruginosa T NC7 AB035549	S000015833
<i>Mycobacterium</i> abscessus T type strain DSM 44196 AJ536038	S000263393
<i>Mycobacterium</i> avium subsp paratuberculosis T ATCC 19698 X52934	S000006259
<i>Mycobacterium</i> gilvum T ATCC 43909 X55599	S000128634
<i>Mycobacterium</i> leprae T Leprosy Tissue Bank Research Institute Borstel FRG X55587	S000129729
<i>Mycobacterium</i> marinum T ATCC 927 AF456240	S000091563
<i>Mycobacterium</i> smegmatis T ATCC 19420 AJ131761	S000112631
<i>Mycobacterium</i> sp C48 AB302334	S000964176
<i>Mycobacterium</i> tuberculosis T gM-1 caprine AJ131120	S000014993
<i>Mycobacterium</i> ulcerans X58954	S000008908
<i>Mycobacterium</i> vanbaalenii T type strainDSM 7251PYR-1 X84977	S000334571
<i>Mycoplasma</i> agalactiae T M24290	S000436112
<i>Mycoplasma</i> arthritidis T M24580	S000436128
<i>Mycoplasma</i> capricolum subsp capripneumoniae T F38 M94728	S000380940
<i>Mycoplasma</i> genitalium T G37 X77334	S000015364
<i>Mycoplasma</i> hyopneumoniae ATCC27719 Y00149	S000004349
<i>Mycoplasma</i> mobile T M24480	S000436123
<i>Mycoplasma</i> mycoides subsp mycoides LC 8756-13 AF085350	S000428670
<i>Mycoplasma</i> pneumoniae T M29061	S000436172
<i>Mycoplasma</i> pulmonis PG34T AF125582	S000387266
<i>Mycoplasma</i> synoviae WVU 1853 pMSk3-4 pMSF16S X52083	S000011604
<i>Myxococcus</i> xanthus UCDAV1 AY724797	S000424700
<i>Natranaerobius</i> thermophilus JWNM-WN-LF DQ417202	S000728348
<i>Nautilia</i> profundicola AmH CP001279	S001292489
<i>Neisseria</i> gonorrhoeae T NCTC 83785 X07714	S000003950
<i>Neisseria</i> meningitidis N94II AJ239310	S000003952
<i>Neorickettsia</i> sennetsu T 11908 M73225	S000010381
<i>Nitrobacter</i> hamburgensis T X14 L11663	S000414382
<i>Nitrosococcus</i> oceani T M96395	S000021135
<i>Nitrosomonas</i> europaea T M96399	S000016676
<i>Nitrosomonas</i> eutropha T Nm57 AY123795	S000396471
<i>Nitrospira</i> multiformis T L35509	S000414634
<i>Nocardia</i> farcinica T ATCC 3318 CIP 78274 X80595	S000364351
<i>Nocardioides</i> sp H-1 T AB087721	S000495764
<i>Nostoc</i> punctiforme PCC 73102 T PCC73102 AF027655	S000427839
<i>Novosphingobium</i> aromaticivorans T SMCC F199 U20756	S000843930

<i>Oceanobacillus iheyensis</i> HTE831 T AB010863	S000541807
<i>Ochrobactrum anthropi</i> T LMG 3301 U70978	S000438370
<i>Oenococcus oeni</i> T M35820	S000436257
<i>Oligotropha carboxidovorans</i> S23 AB099659	S000385783
Onion yellows phytoplasma D12569	S000413451
<i>Opitutus terrae</i> T PB90-1 AJ229235	S000018839
<i>Orientia tsutsugamushi</i> T Karp D38623	S000413795
<i>Parabacteroides distasonis</i> T M86695	S000436850
<i>Paracoccus denitrificans</i> T ATCC 17741T Y16927	S000013118
<i>Parvibaculum lavamentivorans</i> T DS-1 AY387398	S000461692
<i>Pasteurella multocida</i> T M35018	S000436253
<i>Pectobacterium atrosepticum</i> 558 AF373179	S000007553
<i>Pediococcus pentosaceus</i> DSM 20336 T AJ305321	S000013989
<i>Pelobacter carbinolicus</i> T GraBd1 DSM 2380 X79413	S000008920
<i>Pelobacter propionicus</i> T OttBd1 DSM2379 X70954	S000005137
<i>Pelodictyon phaeum</i> CIB 2401 AJ291828	S000001062
<i>Pelotomaculum thermopropionicum</i> SI T AB035723	S000383099
<i>Persephonella marina</i> T EX-H1 AF188332	S000388827
<i>Petrogona mobilis</i> T SJ95T Y15479	S000015010
<i>Phenylobacterium zucineum</i> HLK1 CP000747	S001152240
<i>Photorhabdus luminescens</i> subsp <i>laumondii</i> T TT01 AJ007404	S000019290
<i>Polaromonas naphthalenivorans</i> T CJ2 AY166684	S000399364
<i>Polynucleobacter necessarius</i> subsp <i>necessarius</i> T X93019	S000245913
<i>Porphyromonas gingivalis</i> T L16492	S000414475
<i>Prochlorococcus marinus</i> subsp <i>pastoris</i> T PCC 9511 ATCC700925 AF180967	S000388727
<i>Propionibacterium acnes</i> T DSM 1897 X53218	S000129985
<i>Prosthecochloris aestuarii</i> T SK 413 Y07837	S000138443
<i>Proteus mirabilis</i> T ATCC 29906T AF008582	S000000179
<i>Pseudoalteromonas atlantica</i> T IAM 12927T X82134	S000006832
<i>Pseudoalteromonas haloplanktis</i> T ATCC 14393 X67024	S000127669
<i>Pseudomonas aeruginosa</i> T DSM50071 X06684	S000010427
<i>Pseudomonas entomophila</i> L48 AY907566	S000576961
<i>Pseudomonas fluorescens</i> T DSM 50090T type strain Z76662	S000022197
<i>Pseudomonas mendocina</i> T M59154	S000436517
<i>Pseudomonas putida</i> T IFO 14164 ATCC 12633 D37923	S000413774
<i>Pseudomonas stutzeri</i> T CCUG 11256 U26262	S000437391
<i>Pseudomonas syringae</i> T ATCC 19310 D84026	S000009688
<i>Psychrobacter arcticus</i> 273-4 T AY444822	S000502157
<i>Psychrobacter cryohalolentis</i> K5 T AY660685	S000594703
<i>Psychromonas ingrahamii</i> 37 T U73721	S000438408
<i>Ralstonia solanacearum</i> T ATCC 11696 X67036	S000000634
<i>Renibacterium salmoninarum</i> T ATCC 33209 Leaburg X51601	S000129969
<i>Rhizobium etli</i> T CFN 42 USDA 9032 U28916	S000437446
<i>Rhizobium radiobacter</i> K84 ATCC BAA-868 CP000628	S001292455
<i>Rhizobium radiobacter</i> str C58 U Washington AE009324	S000497810
<i>Rhizobium vitis</i> T LMG 8750 X67225	S000364331
<i>Rhodobacter sphaeroides</i> T 241 X53853	S000364319
<i>Rhodocista centenaria</i> SW SW ATCC 51521 CP000613	S001198298
<i>Rhodococcus erythropolis</i> T ATCC 4277T X81929	S000000256
<i>Rhodococcus jostii</i> T IFO16295 AB046357	S000015177

<i>Rhodococcus opacus</i> T type strain DSM43205 X80630	S000364385
<i>Rhodoferax ferrireducens</i> T T118 AF435948	S000394152
<i>Rhodopirellula baltica</i> SH 1 BX294149	S000528536
<i>Rhodopseudomonas palustris</i> T ATCC 17001 D25312	S000413604
<i>Rhodospirillum rubrum</i> T ATCC 11170 D30778	S000413733
<i>Rickettsia akari</i> T MK Kaplan L36099	S000414651
<i>Rickettsia bellii</i> T 369L42-1 L36103	S000414655
<i>Rickettsia canadensis</i> T 2678 L36104	S000414656
<i>Rickettsia conorii</i> Moroccan L36105	S000414657
<i>Rickettsia felis</i> URRWXCa2 URRWXCa2 California 2 CP000053	S000581773
<i>Rickettsia massiliae</i> T Mtu1 L36214	S000414664
<i>Rickettsia prowazekii</i> M21789	S000436058
<i>Rickettsia rickettsii</i> T L36217	S000414667
<i>Rickettsia typhi</i> T Wilmington L36221	S000414671
<i>Roseiflexus castenholzii</i> T HLO8 AB041226	S000469300
<i>Roseiflexus</i> sp RS-1 CP000686	S000870903
<i>Roseobacter denitrificans</i> T OCH 114 M96746	S000016668
<i>Rubrobacter xylanophilus</i> T PRD-1 X87135	S000010067
<i>Ruegeria pomeroyi</i> T DSS-3 AF098491	S000428852
<i>Saccharophagus degradans</i> 2-40 T AF055269	S000569987
<i>Saccharopolyspora erythraea</i> T NRRL 2338 X53198	S000126948
<i>Salinibacter ruber</i> T M31 AF323500	S000391577
<i>Salinispora tropica</i> CNB440 AY040617	S000531428
<i>Salmonella enterica</i> subsp <i>enterica</i> T ATCC 13311 X80681	S000000641
<i>Serratia proteamaculans</i> T DSM 4543 AJ233434	S000012783
<i>Shewanella amazonensis</i> T SB2B AF005248	S000386987
<i>Shewanella baltica</i> T NCTC 10735 AJ000214	S000022438
<i>Shewanella denitrificans</i> T OS-217 AJ311964	S000123243
<i>Shewanella frigidimarina</i> T ACAM 591T ICP1 U85903	S000438619
<i>Shewanella halifaxensis</i> T HAW-EB4 AY579751	S000379104
<i>Shewanella loihica</i> T PV-4 ATCC BAA-1088 DQ286387	S000646143
<i>Shewanella oneidensis</i> DML7 AF387347	S000392860
<i>Shewanella pealeana</i> T ANG-SQ1 AF011335	S000387087
<i>Shewanella piezotolerans</i> WP3 type strain WP3 AJ551090	S000351860
<i>Shewanella putrefaciens</i> T ATCC 8071 X82133	S000009307
<i>Shewanella sediminis</i> T HAW-EB3 AY579750	S000573255
<i>Shewanella woodyi</i> T MS32 AF003549	S000386899
<i>Shigella boydii</i> X96965	S000000828
<i>Shigella dysenteriae</i> T X96966	S000000258
<i>Shigella flexneri</i> T X96963	S000013935
<i>Shigella sonnei</i> X80726	S000003976
<i>Sodalis glossinidius</i> AF548135	S000432756
<i>Sorangium cellulosum</i> So9857 AF467674	S000001787
<i>Sphingomonas wittichii</i> T DSM 6014 AB021492	S000382574
<i>Sphingopyxis alaskensis</i> S23 AY509242	S000262745
<i>Staphylococcus aureus</i> subsp <i>aureus</i> T ATCC 12600 D83357	S000413958
<i>Staphylococcus carnosus</i> subsp <i>carnosus</i> T ATCC 51365T AB009934	S000381981
<i>Staphylococcus epidermidis</i> T ATCC 14990 D83363	S000413964
<i>Staphylococcus haemolyticus</i> T ATCC 29970 MAFF 911476 D83367	S000413968
<i>Staphylococcus saprophyticus</i> subsp <i>saprophyticus</i> T ATCC 15305 MAFF 911473 D83371	S001171519



<i>Stenotrophomonas maltophilia</i> T ATCC 13637T AB008509	S000381870
<i>Streptococcus agalactiae</i> GTC 730 T ATCC 51487 AB112407	S000319535
<i>Streptococcus equi</i> subsp <i>equi</i> NCDO 2493T X58314	S000131147
<i>Streptococcus gordonii</i> T ATCC 10558 AF003931	S000386903
<i>Streptococcus mutans</i> T NCTC 10449T X58303	S000134021
<i>Streptococcus pneumoniae</i> NCTC 7465T X58312	S000127578
<i>Streptococcus pyogenes</i> T ATCC 12344 NCIB 11841 MAFF 910217 AB002521	S000381689
<i>Streptococcus sanguinis</i> T ATCC 10556 AF003928	S000386900
<i>Streptococcus suis</i> T ATCC 43765 NCTC 10234 AB002525	S000381693
<i>Streptococcus thermophilus</i> T DSM 20617 X68418	S000004394
<i>Streptococcus uberis</i> T ATCC 19436 NCTC 3858 AB002526	S000381694
<i>Streptomyces avermitilis</i> T MA-4680 AB078897	S000469461
<i>Streptomyces coelicolor</i> T DSM 40233T Z76678	S000011639
<i>Streptomyces griseus</i> T JCM 4623 AB045872	S000011833
<i>Sulfurihydrogenibium azorense</i> Az-Fu1 T Az-Fu1 Fc8A70 AF528192	S000431601
<i>Sulfurihydrogenibium</i> sp 153IV-9 AM259491	S000728033
<i>Sulfurimonas denitrificans</i> T DSM 1251 L40808	S000435956
<i>Symbiobacterium thermophilum</i> T AB004913	S000009012
<i>Synechocystis</i> sp MMG-7 FJ839358	S001352300
<i>Syntrophobacter fumaroxidans</i> T MPOB X82874	S000022640
<i>Syntrophomonas wolfei</i> subsp <i>wolfei</i> LYB AF022248	S000387176
<i>Thermoanaerobacter pseudethanolicus</i> ATCC 33223 ATCC 33223 39E L09164	S000414342
<i>Thermoanaerobacter</i> sp TLO AY328919	S000327637
<i>Thermobifida fusca</i> T ATCC 27730 AF002264	S000386888
<i>Thermomicrobium roseum</i> T M34115	S000436216
<i>Thermosiphon africanus</i> T M83140	S000010674
<i>Thermosiphon melanesiensis</i> T BI429 Z70248	S000017523
<i>Thermosynechococcus elongatus</i> BP-1 BA000039	S000528501
<i>Thermotoga lettingae</i> T TMO AF355615	S000392200
<i>Thermotoga maritima</i> T M21774	S000436057
<i>Thermotoga neapolitana</i> T DSM 4359 AB039768	S000383207
<i>Thermotoga petrophila</i> T RKU-1 AB027016	S000010700
<i>Thermotoga</i> sp KOL6 AJ401018	S000433497
<i>Thermus thermophilus</i> T M26923	S000436153
<i>Thiobacillus denitrificans</i> T NCIMB 9548 AJ243144	S000016476
<i>Treponema denticola</i> T ATCC35404 AF139204	S000387944
<i>Treponema pallidum</i> subsp <i>pertenue</i> Gauthier AF426102	S000003270
<i>Trichodesmium erythraeum</i> AF013030	S000427667
<i>Tropheryma whipplei</i> T twist AF251035	S000390102
<i>Ureaplasma parvum</i> serovar 3 T ATCC27815 AF073456	S000439927
<i>Ureaplasma urealyticum</i> T M23935	S000436101
<i>Verminephrobacter eiseniae</i> EF05-1 DQ327668	S000638914
<i>Vibrio cholerae</i> T ATCC 14035T X74695	S000002810
<i>Vibrio harveyi</i> T ATCC 14126T X74706	S000008971
<i>Vibrio parahaemolyticus</i> T ATCC 17802T X74720	S000013957
<i>Vibrio splendidus</i> T ATCC 33125T X74724	S000007850
<i>Vibrio vulnificus</i> T ATCC 27562T X74726	S000013154
<i>Wolbachia</i> endosymbiont of <i>Onchocerca gutturosa</i> AJ276498	S000000013
<i>Wolbachia</i> sp L02888	S000001444
<i>Wolinella succinogenes</i> T ATCC 29543 M88159	S000363191

<i>Xanthobacter autotrophicus</i> T 7c X94201	S000752412
<i>Xanthomonas axonopodis</i> T LMG 538-T X95919	S000381396
<i>Xanthomonas campestris</i> T LMG 739 T Y10754	S000015789
<i>Xanthomonas oryzae</i> T LMG 5047-T X95921	S000381398
<i>Yersinia enterocolitica</i> subsp <i>enterocolitica</i> T M59292	S000436530
<i>Yersinia pestis</i> T NCTC 5923 AF366383	S000392506
<i>Yersinia pseudotuberculosis</i> T ATCC 29833 AF366375	S000392498
<i>Zymomonas mobilis</i> subsp <i>mobilis</i> T ATCC10988 AF281031	S000003443

**Archaea (50 organisms)**

	<b>RDP id</b>
<i>Aeropyrum pernix</i> T K1 AB008745	S000529500
<i>Archaeoglobus fulgidus</i> L3 DQ131905	S000599559
<i>Caldivirga maquilingensis</i> T IC-167 AB013926	S000469187
<i>Candidatus Korarchaeum cryptofilum</i> OPF8 CP000968	S001014502
<i>Candidatus Methanoregula boonei</i> 6A8 DQ282124	S000646142
<i>Haloarcula marismortui</i> pHC8 X61688	S000381229
<i>Halobacterium salinarum</i> T DSM 3754 AJ496185	S000530878
<i>Halobacterium</i> sp NCIMB 741 AB074565	S000384602
<i>Haloquadratum walsbyi</i> C23 AY676200	S000422110
<i>Halorubrum lacusprofundi</i> T ACAM 34 X82170	S000414757
<i>Hyperthermus butylicus</i> T DSM 5456 X99553	S000381421
<i>Ignicoccus hospitalis</i> KIN4/I CP000816	S000925961
<i>Metallosphaera sedula</i> T DSM 5348 X90481	S000414765
<i>Methanobrevibacter smithii</i> T PS U55233	S000437792
<i>Methanocaldococcus jannaschii</i> M59126	S000436489
<i>Methanococcoides burtonii</i> T DSM 6242 X65537	S000414735
<i>Methanococcus aeolicus</i> U39016	S000437548
<i>Methanococcus maripaludis</i> T JJ U38484	S000437542
<i>Methanococcus vannielii</i> T SB AY196675	S000401565
<i>Methanocorpusculum labreanum</i> T Z AF095267	S000428808
<i>Methanoculleus marisnigri</i> T M59134	S000436497
<i>Methanopyrus kandleri</i> T av19 M59932	S000650511
<i>Methanosaeta thermophila</i> PT T AB071701	S000384494
<i>Methanosarcina acetivorans</i> T M59137	S000436500
<i>Methanosarcina barkeri</i> T DSM 800 T OCM 38 AJ012094	S000432905
<i>Methanosarcina mazei</i> DSM 2053T OCM 26 AJ012095	S000432906
<i>Methanosphaera stadtmanae</i> T M59139	S000436502
<i>Methanosphaerula palustris</i> E1-9c EU156000	S000943039
<i>Methanothermobacter thermautotrophicus</i> T X68712	S000414737
<i>Nanoarchaeum equitans</i> Kin4-M AJ318041	S000433441
<i>Natronomonas pharaonis</i> JCM8858 D87971	S000380812
<i>Nitrosopumilus maritimus</i> SCM1 CP000866	S000965223
<i>Picrophilus oshimae</i> T KAW2/2 X84901	S000414758
<i>Pyrobaculum aerophilum</i> T im2 L07510	S000414322
<i>Pyrobaculum arsenaticum</i> T PZ6 AJ277124	S000433096
<i>Pyrobaculum calidifontis</i> VA1 AB078332	S000384778
<i>Pyrobaculum islandicum</i> T geo3 L07511	S000414323
<i>Pyrococcus abyssi</i> GE23 AY099166	S000395987
<i>Pyrococcus furiosus</i> T U20163	S000437256
<i>Pyrococcus horikoshii</i> T JA-1 D87344	S000582036

Staphylothermus marinus T F1 - DSM 3639 X99560	S000381428
Sulfolobus islandicus I2 AY247893	S000404559
Sulfolobus solfataricus T DSM 1616 X90478	S000414762
Sulfolobus tokodaii T strain 7 AB022438	S000382597
Thermococcus kodakarensis KOD1 AP006878	S000544863
Thermococcus onnurineus NA1 DQ167232	S000600392
Thermofilum pendens T Hvv3 DSM 2475 X14835	S000529303
Thermoplasma volcanium T GSS1 AJ299215	S000433278
Thermoproteus neutrophilus T JCM9278 AB009618	S000469148
Uncultured methanogenic archaeon SMPFLSS56m 11 FJ982758	S001449158