

Supplementary table.1

Classification	Organism, strain information and abbreviation	Type of complex I	16 s RNA accession no used in Fig.1
Acidobacteria	Acidobacteria bacterium Ellin 345, A.bac*	14 subunit	NT02AB4895(CMR)
	Acidobacterium capsulatum ATCC 51196	14 subunit	
	Acidobacterium sp. MP5ACTX9	14 subunit	
	Candidatus koribacter versatilis Elin345	14 subunit	
	Candidatus solibacter usitatus Ellin6070	14 subunit	
	Terriglobus saanensis SP1PR4	14 subunit	
<i>Actinobacteria</i> <i>Actionmycetals</i>	Acidothermus cellulolyticus 11B, A.cel*	14 subunit	4485153 (Gb)
	Actinomyces coleocanis DSM 15436	14 subunit	
	Actinomyces odontolyticus	14 subunit	
	Actinomyces oris K20	14 subunit	
	Actinomyces sp. oral taxon 171 str. F0337	14 subunit	
	Actinomyces urogenitalis DSM 15434	14 subunit	
	Actinomyces viscosus C505	14 subunit	
	Actinosynnema mirum DSM 43827	14 subunit	
	Acidimicrobium ferrooxidans DSM10331	14 subunit	

	Aeromicrobium marinum DSM 15272	14 subunit	
	Amycolatopsis mediterranei U32	14 subunit	
	Arcanobacterium haemolyticum DSM 20595	14 subunit	
	Arthrobacter arilaitensis Re117	Not present	
	Arthrobacter aureus TC1, A.aur*	Not present	AAur_0150 (CMR)
	Arthrobacter chlorophenolicus A6	Not present	
	Arthrobacter phenanthrenivorans Sphe3	Not present	
	Arthrobacter sp. FB24	Not present	
	Beutenbergia cavernae DSM 12333	14 subunit	
	Brachybacterium faecium DSM 4810	Not present	
	Brevibacterium linens BL2	Not present	
	Brevibacterium mcbrellneri ATCC 49030	Not present	
	Catenulisporea acidiphila DSM 44928	14 subunit	
	Cellulomonas flavigena DSM 20109	14 subunit	
	Clavibacter michiganensis	Not present	
	Clavibacter michiganensis sub sp.michiganensis NCPPB 382, C.mic*	Not present	5309728 (Gb)
	Corynebacterium efficiens YS-314	Not present	

	Corynebacterium accolens	Not present	
	Corynebacterium ammoniagenes DSM 20306	Not present	
	Corynebacterium amycolatum SK46	Not present	
	Corynebacterium aurimucosum ATCC 700975	Not present	
	Corynebacterium bovis DSM 20582	Not present	
	Corynebacterium diphtheriae NCTC 13129	Not present	
	Corynebacterium diphtheriae NCTC13129, C.dip*	Not present	NTCD01_Cd16SA (CMR)
	Corynebacterium efficiens YS-314	Not present	
	Corynebacterium genitalium ATCC 33030	Not present	
	Corynebacterium glutamicum ATCC 13032 Bielefeld	Not present	
	Corynebacterium jeikeium K411	Not present	
	Corynebacterium kroppenstedtii DSM 44385	Not present	
	Corynebacterium lipophiloflavum DSM 44291	Not present	
	Corynebacterium matruchotii	Not present	
	Corynebacterium pseudogenitalium ATCC 33035	Not present	
	Corynebacterium pseudotuberculosis FRC41	Not present	

	Corynebacterium resistens DSM 45100	Not present	
	Corynebacterium striatum ATCC 6940	Not present	
	Corynebacterium tuberculostearicum SK141	Not present	
	Corynebacterium urealyticum DSM 7109	Not present	
	Corynebacterium variabile DSM 44702	Not present	
	Dermacoccus sp. Ellin185	11 subunit	
	Dietzia cinnamea P4	14 subunit	
	Frankia alni ACN14a	14 subunit	
	Frankia sp. CcI3, F.spe*	14 subunit	NT01FS3550 (CMR)
	Frankia symbiont of Datisca glomerata	14 subunit	
	Geodermatophilus obscurus DSM 43160	14 subunit	
	Gordonia bronchialis DSM 43247	14 subunit	
	Gordonia neofelifaecis NRRL B-59395	14 subunit	
	Intrasporangium calvum DSM 43043	14 subunit	
	Janibacter sp. HTCC2649	14 subunit	
	Jonesia denitrificans DSM 20603	14 subunit	
	Kineococcus radiotolerans SRS30216	Not present	
	Kocuria rhizophila DC2201	Not present	

	Kribbella flavida DSM 17836	14 subunit	
	Kytococcus sedentarius DSM 20547	Not present	
	Leifsonia xyli CTCB07	Not present	
	Leifsonia xyli subsp. xyli str. CTCB07	Not present	
	Marine actinobacterium PHSC20C1	Not present	
	Microbacterium testaceum StLB037	Not present	
	Micrococcus luteus	Not present	
	Micromonospora aurantiaca ATCC 27029	14 subunit	
	Micromonospora sp. ATCC 39149	14 subunit	
	Mobiluncus curtisii	14 subunit	
	Mobiluncus mulieris	14 subunit	
	Mycobacterium abscessus ATCC 19977T	14 subunit	
	Mycobacterium avium 104	14 subunit	
	Mycobacterium bovis BCG str.Pasteur 1173P2, M.bov*	14 subunit	4699151 (Gb)
	Mycobacterium gilvum PYR-GCK	14 subunit	
	Mycobacterium intracellulare ATCC 13950	14 subunit	
	Mycobacterium kansasii ATCC 12478	14 subunit	
	Mycobacterium leprae TN	Not present	

	Mycobacterium marinum M	14 subunit	
	Mycobacterium parascrofulaceum ATCC BAA-614	14 subunit	
	Mycobacterium smegmatis MC2	14 subunit	
	Mycobacterium sp.JLS	14 subunit	
	Mycobacterium tuberculosis CDC1551, M. tub*	14 subunit	GMT_Mt16SA (CMR)
	Mycobacterium ulcerans Agy99	14 subunit	
	Mycobacterium vanbaalenii PYR-1	14 subunit	
	Nakamurella multipartita DSM 44233	14 subunit	
	Nocardia farcinica IFM10152 , N.far*	14 subunit	NT01NFA1135 (CMR)
	Nocardiodaceae bacterium Broad-1	14 subunit	
	Nocardioides sp.JS614 ,N.spe*	14 subunit	4598293 (G b)
	Nocardiopsis dassonvillei subsp. dassonvillei DSM 43111	14 subunit	
	Propionibacterium acnes KPA171202 ,P.acn*	14 subunit	NT02PA1493 (CMR)
	Propionibacterium freudenreichii subsp. shermanii CIRM-BIA1	14 subunit	
	Pseudonocardia sp. P1	14 subunit	
	Renibacterium salmoninarum ATCC 33209 , R.sal*	Not present	NT11RS0449 (CMR)
	Rhodococcus equi	14 subunit	
	Rhodococcus erythropolis	14 subunit	

	Rhodococcus jostii RHA1	14 subunit	
	Rhodococcus opacus B4	14 subunit	
	Rhodococcus sp.RHA 1, R.spe*	14 subunit	NT05RS1044 (CMR)
	Rothia dentocariosa	Not present	
	Rothia mucilaginosa	Not present	
	Saccharomonospora viridis DSM 43017	14 subunit	
	Saccharopolyspora erythraea NRRL 2338	14 subunit	
	Salinispora arenicola CNS-205	14 subunit	
	Salinispora tropica CNB-440 ,S.tro*	14 subunit	5056617(G b)
	Sanguibacter keddieii DSM 10542	14 subunit	
	Segniliparus rotundus DSM 44985	Not present	
	Segniliparus rugosus ATCC BAA-974	Not present	
	Stackebrandtia nassauensis DSM 44728	14 subunit	
	Streptomyces albus J1074	14 subunit	
	Streptomyces avermitilis MA- 4680	14 subunit	
	Streptomyces cf. griseus XylebKG-1	14 subunit	
	Streptomyces bingchenggensis BCW-1	14 subunit	
	Streptomyces clavuligerus	14 subunit	
	Streptomyces coelicolor A3(2) ,S.coe*	14 subunit	NTSC02_Sc16SA (CMR)

	Streptomyces filamentosus	Not present	
	Streptomyces ghanaensis ATCC 14672	14 subunit	
	Streptomyces griseoflavus Tu4000	14 subunit	
	Streptomyces griseus subsp. griseus NBRC 13350	14 subunit	
	Streptomyces himastatinicus ATCC 53653	Not present	
	Streptomyces lividans TK24	14 subunit	
	Streptomyces pristinaespiralis ATCC 25486	14 subunit	
	Streptomyces scabiei 87.22	14 subunit	
	Streptomyces sp. AA4	14 subunit	
	Streptomyces svaceus ATCC 29083	14 subunit	
	Streptomyces violaceusniger Tu 4113	14 subunit	
	Streptomyces viridochromogenes DSM 40736	14 subunit	
	Streptosporangium roseum DSM 43021	14 subunit	
	Thermobifida fusca YX ,T.fus*	14 subunit	NT01TF2248 (CMR)
	Thermobispora bispora DSM 43833	14 subunit	
	Thermomonospora curvata DSM 43183	14 subunit	
	Tropheryma whipplei TW08/27,T.whi*	Not present	NTTW02_Tw16SA (CMR)

<i>Bifidobacteriales</i>	Tsukamurella paurometabola DSM 20162	14 subunit	NTBL01_BI16SA (CMR)
	Xylanimonas cellulositytica DSM 15894	14 subunit	
	Bifidobacterium adolescentis	Not present	
	Bifidobacterium angulatum DSM 20098	Not present	
	Bifidobacterium animalis	Not present	
	Bifidobacterium animalis subsp. lactis HN019	Not present	
	Bifidobacterium bifidum	Not present	
	Bifidobacterium breve DSM 20213	Not present	
	Bifidobacterium catenulatum DSM 16992	Not present	
	Bifidobacterium dentium	Not present	
	Bifidobacterium gallicum DSM 20093	Not present	
	Bifidobacterium longum NCC2705, B.lon*	Not present	
	Bifidobacterium pseudocatenulatum DSM 20438	Not present	
	Bifidobacterium sp. 12_1_47BFAA	Not present	
	Gardnerella vaginalis	Not present	
<i>Rubrobacteridae</i>	Parascardovia denticolens	Not present	
	Scardovia inopinata F0304	Not present	

<i>Coriobacteriales</i>	Rubrobacter xylanophilus DSM 9941, R.xyl [*]	11 subunit	NT01RX1420 (CMR)
	Conexibacter woesei DSM 14684	14 subunit	
	Atopobium parvulum DSM 20469	Not present	
	Atopobium rimae ATCC 49626	Not present	
	Atopobium vaginae	Not present	
	Collinsella aerofaciens ATCC 25986, C.aer [*]	Not present	HQ259730.1 (GB)
	Collinsella intestinalis DSM 13280	Not present	
	Collinsella stercoris DSM 13279	Not present	
	Coriobacterium glomerans PW2, DSM 20642	Not present	
	Cryptobacterium curtum DSM 15641	Not present	
	Eggerthella lenta DSM 2243	Not present	
	Eggerthella sp. HGA1	Not present	
	Olsenella uli DSM 7084	Not present	
	Slackia exigua ATCC 700122	Not present	
	Slackia heliotrinireducens DSM 20476	Not present	
<i>Aquificae</i> <i>Aquificales</i>	Aquifex aeolicus VF5, A.aeo [*]	14 subunit	NTAA01_16SrRNA-1 (CMR)
	Desulfurobacterium thermolithotrophum DSM 11699	14 subunit	

	Hydrogenivirga sp. 128-5-R1-1	14 subunit	
	Hydrogenobacter thermophilus TK-6	14 subunit	
	Hydrogenobaculum sp. Y04AAS1	14 subunit	
	Persephonella marina EX-H1	14 subunit	
	Sulfurihydrogenibium azorense Az-Fu1	14 subunit	
	Sulfurihydrogenibium sp. Y03AOP1	14 subunit	
	Sulfurihydrogenibium yellowstonense SS-5	14 subunit	
	Thermocrinis albus DSM 14484	14 subunit	
	Thermovibrio ammonificans HB-1	14 subunit	
Bacteroidetes <i>Bacteroidales</i>	Alistipes putredinis DSM 17216	Not present	
	Alistipes sp. HGB5	Not present	
	Anaerophaga thermohalophila DSM 12881	Not present	
	Bacteroides caccae ATCC 43185	11 subunit	
	Bacteroides capillosus ATCC 29799	Not present	
	Bacteroides cellulosilyticus DSM 14838	11 subunit	
	Bacteroides coprocola DSM 17136	11 subunit	
	Bacteroides coprophilus DSM 18228	11 subunit	

	Bacteroides dorei	11 subunit	NT01BF2904 (CMR)
	Bacteroides eggerthii	11 subunit	
	Bacteroides finegoldii DSM 17565	11 subunit	
	Bacteroides fragilis NCTC9343, B.fra*	11 subunit	
	Bacteroides helcogenes P 36-108	11 subunit	
	Bacteroides intestinalis DSM 17393	11 subunit	
	Bacteroides ovatus	11 subunit	
	Bacteroides pectinophilus ATCC 43243 Not	11 subunit	
	Bacteroides plebeius DSM 17135	11 subunit	
	Bacteroides salanitronis DSM 18170	11 subunit	
	Bacteroides sp. D22	11 subunit	
	Bacteroides stercoris ATCC 43183	11 subunit	
	Bacteroides thetaiotaomicron VPI-5482 ,	11 subunit	
	Bacteroides uniformis ATCC 8492	11 subunit	
	Bacteroides vulgatus PC510	11 subunit	
	Bacteroides xylanisolvens SD CC 1b	11 subunit	
	Bacteroidetes oral taxon 274 str. F0058	11 subunit	
	Barnesiella viscericola C46,	11 subunit	

	DSM 18177		
	Candidatus Amoebophilus asiaticus 5a2	11 subunit	
	Candidatus Azobacteroides pseudotrichonymphae genomovar. CFP2	11 subunit	
	Odoribacter splanchnicus DSM 20712	11 subunit	
	Paludibacter propionicigenes WB4	11 subunit	
	Parabacteroides distasonis ATCC 8503	Not present	
	Parabacteroides distasonis ATCC 8503, P.dis*	Not present	5305224 (Gb)
	Parabacteroides johnsonii DSM 18315	Not present	
	Parabacteroides merdae ATCC 43184	Not present	
	Parabacteroides sp. D13 Not	Not present	
	Porphyromonas asaccharolytica PR426713P-I	Not present	
	Porphyromonas endodontalis ATCC 35406	Not present	
	Porphyromonas gingivalis W83 ,P.gin*	Not present	GPG_Pg16SA (CMR)
	Porphyromonas uenonis 60-3	Not present	
	Prevotella amnii CRIS 21A-A	11 subunit	
	Prevotella bergensis DSM 17361	11 subunit	
	Prevotella bivia JCVIHMP010	11 subunit	

<i>Cytophagales</i>	Prevotella bryantii B14	11 subunit	9001804 (GB)
	Prevotella buccae	11 subunit	
	Prevotella buccalis ATCC 35310	11 subunit	
	Prevotella copri DSM 18205	11 subunit	
	Prevotella denticola CRIS 18C-A	11 subunit	
	Prevotella disiens FB035-09AN	11 subunit	
	Prevotella marshii DSM 16973	11 subunit	
	Prevotella melaninogenica	11 subunit	
	Prevotella multiformis DSM 16608	11 subunit	
	Prevotella multisaccharivorax PPPA20, DSM 17128	11 subunit	
	Prevotella oris	11 subunit	
	Prevotella ruminicola 23,P.rum*	11 subunit	
	Prevotella salivae DSM 15606	11 subunit	
	Prevotella sp. oral taxon 299 str. F0039	11 subunit	
	Prevotella tannerae ATCC 51259	11 subunit	
	Prevotella timonensis CRIS 5C-B1	11 subunit	
	Prevotella veroralis F0319	11 subunit	
	Prosthecochloris aestuarii DSM 271	11 subunit	
	Algoriphagus sp. PR1	Not present	

<i>Flavobacteriales</i>	Chitinophaga pinensis DSM 2588	14 subunit	NT02CH0103 (CMR)
	Cytophaga hutchinsonii ATCC 33406 , C.hut*	14 subunit	
	Dyadobacter fermentans DSM 18053	14 subunit	
	Leadbetterella byssophila DSM 17132	14 subunit	
	Marivirga tractuosa DSM 4126	Not present	
	Microscilla marina ATCC 23134	11 subunit	
	Spirosoma linguale DSM 74	14 subunit	
	Blattabacterium sp. (Blattella germanica) str. Bge	Not present	
	Blattabacterium sp. (Periplaneta americana) str. BPLAN	Not present	
	Candidatus Sulcia muelleri GWSS	Not present	
	Capnocytophaga gingivalis ATCC 33624	Not present	
	Capnocytophaga ochracea	Not present	
	Capnocytophaga sp. oral taxon 338 str. F0234	Not present	
	Capnocytophaga sputigena ATCC 33612	Not present	
	Cellulophaga algicola DSM 14237	Not present	
	Cellulophaga lytica DSM 7489	Not present	
	Chryseobacterium gleum ATCC 35910	14 subunit	

	Croceibacter atlanticus HTCC2559	Not present	
	Dokdonia donghaensis MED134	Not present	
	Flavobacteria bacterium BAL38	Not present	
	Flavobacteriaceae bacterium 3519-10	14 subunit	
	Flavobacteriales bacterium ALC-1	Not present	
	Flavobacterium johnsoniae UW101 ,F.joh*	14 subunit	5092204 (Gb)
	Flavobacterium psychrophilum JIP02/86	14 subunit	
	Gramella forsetii KT0803,G.for*	Not present	4652227 (Gb)
	Kordia algicida OT-1	Not present	
	Leeuwenhoekiella blandensis MED217	Not present	
	Polaribacter irgensii 23-P	Not present	
	Polaribacter sp. MED152	Not present	
	Psychroflexus torquis ATCC 700755	Not present	
	Riemerella anatipestifer	14 subunit	
	Robiginitalea biformata HTCC2501	Not present	
	unidentified eubacterium SCB49	Not present	
	Weeksella virosa DSM 16922	14 subunit	
	Zunongwangia profunda SM- A87	Not present	

<i>Sphingobacteriales</i>	Mucilaginibacter paludis DSM 18603 Pedobacter heparinus DSM 2366 Pedobacter saltans DSM 12145 Pedobacter sp. BAL39 Salinibacter ruber DSM 13855 ,S.rub* Sphingobacterium sp. 21 Sphingobacterium spiritivorum	14 subunit 14 subunit 14 subunit 14 subunit 14 subunit 14 subunit 14 subunit	SRU_2691 (CMR)
Chlamydiae Chlamydiales	Candidatus Protochlamydia amoebophila UWE25 ,C.pro* Chlamydia muridarum Chlamydia muridarum strain Nigg Chlamydia pneumoniae TW-183 Chlamydia trachomatis Chlamydia trachomatis serovar D ,C.tra* Chlamydophila abortus Chlamydophila caviae Chlamydophila felis Fe/C-56 Chlamydophila pneumoniae GPIC Parachlamydia acanthamoebae	14 subunit Not present Not present Not present Not present Not present Not present Not present Not present 14 subunit	NT03PS1095, (CMR) NTCT01_16SrRNA-1 (CMR)

	str. Hall's coccus		
	Waddlia chondrophila WSU 86-1044	Not present	
Chrysoigenetes	Desulfurispirillum indicum S5,D.ind*	14 subunit	10072602 (GB)
Chlorobi <i>Chlorobiales</i>	Chlorobaculum parvum NCIB 8327 Chlorobium chlorochromatii, CaD3 ,C.chl* Chlorobium ferrooxidans DSM 13031 Chlorobium limicola DSM 245 Chlorobium luteolum DSM 273 Chlorobium phaeobacteroides Chlorobium phaeovibrioides DSM 265 Chlorobium tepidum TLS , C.tep* Chloroherpeton thalassium ATCC 35110 Maribacter sp. HTCC2170 Pelodictyon luteolum DSM273 Pelodictyon phaeoclathratiforme BU-1 Prosthecochloris vibrioformis DSM265	11 subunit 11 subunit 11 subunit 11 subunit 11 subunit 11 subunit 11 subunit 14 subunit 11 subunit 11 subunit 11 subunit	NTCC03_Cc16SA (CMR) GCT_CTrrnaA16S (CMR)
Chloroflexi <i>Anaerolineales</i>	Anaerolinea thermophila UNI-1	14 subunit	

<i>Dehalococcoidetes</i>	Dehalococcoides sp.CBDB1, D.spe*	11 subunit	NT01DC0865 (CMR)
	Dehalogenimonas lykanthroporepellens BL-DC-9	11 subunit	
	Dehalococcoides ethenogenes 195 ,D.eth*	11 subunit	DET_De16S (CMR)
<i>Chloroflexales</i>	Chloroflexus aggregans DSM 9485	14 subunit	
	Chloroflexus aurantiacus J-10-fl	14 subunit	
	Chloroflexus sp. Y-400-fl	14 subunit	
	Oscillochloris trichoides DG-6	11 subunit	
	Roseiflexus castenholzii DSM 13941, R.cas*	14 subunit	ABO41226.1(Gb)
	Roseiflexus sp. RS-1	14 subunit	
<i>Thermomicrobiales</i>	Thermomicrobium roseum DSM5159,T.ros*	11 subunit	7355318 (GB)
<i>Herpetosiphonales</i>	Herpetosiphon aurantiacus ATCC 23779,H.aur*	14 subunit	CP000875.1(Gb)
<i>Ktedonobacterales</i>	Ktedonobacter racemifer DSM 44963,K.rac*	14 subunit	AB510917.2 (GB)
	Sphaerobacter thermophilus DSM 20745, Sp.th*	11 subunit	8637889 (GB)
<i>Sphaerobacterales</i>			
Cyanobacteria <i>Acaryochloris</i>	Acaryochloris marina MBIC11017, A.mar*	11 subunit	5680242 (Gb)

<i>Chroococcales</i>	Crocospaera watsonii WH 8501	11 subunit	
	Cyanobium sp. PCC 7001	11 subunit	
	Cyanothece sp. ATCC 51142	11 subunit	
	Microcystis aeruginosa NIES-843 ,M.aer*	11 subunit	5862917 (Gb)
	Synechococcus elongatus PCC 7942, S.elo*	11 subunit	3199851(Gb)
	Synechococcus sp.CC9902, S.spe*	11 subunit	3743821(Gb)
	Synechocystis sp. PCC6803 ,S.cys*	11 subunit	NTSS01_NT01SS16SA (CMR)
<i>Gloeobacterales</i>	Thermosynechococcus elongatus BP-1, T.elo*	11 subunit	NTTE01_Te16SA (CMR)
	Gloeobacter violaceus PCC7421,G.vio*	11 subunit	NTGV01_Gv16SA (CMR)
<i>Nostocales</i>	Anabaena variabilis ATCC 29413, A.var*	11 subunit	NT02AV0896 (CMR)
	Cylindrospermopsis raciborskii CS-505	11 subunit	
	Nostoc azollae 0708	11 subunit	
	Nostoc punctiforme PCC 73102	11 subunit	
	Nostoc sp. PCC 7120	11 subunit	
	Raphidiopsis brookii D9	11 subunit	
<i>Oscillatoriales</i>	Arthrospira maxima CS-328	11 subunit	

<i>Prochlorales</i>	Arthrospira platensis str. Paraca	11 subunit	NT02TE3623 (CMR)
	Cyanobacterium UCYN-A	11 subunit	
	Leptolyngbya valderiana BDU 20041	Not present	
	Lyngbya sp. PCC 8106	11 subunit	
	Microcoleus chthonoplastes PCC 7420	11 subunit	
	Nodularia spumigena CCY9414	11 subunit	
	Oscillatoria sp. PCC 6506	11 subunit	
	Trichodesmium erythraeum IMS101,T.ery*	11 subunit	
	Prochlorococcus marinus MIT 9312,P.mar*	11 subunit	
	Prochlorococcus sp. CC 9311	11 subunit	NTPM07_Pm16SA (CMR)
<i>Deinococcus-Thermus Deinococcales</i>	Deinococcus deserti VCD115	14 subunit	GDR_Dr16SB (CMR)
	Deinococcus geothermalis DSM 11300	14 subunit	
	Deinococcus maricopenensis DSM 21211	Not present	
	Deinococcus proteolyticus MRP	Not present	
	Deinococcus radiodurans R1 ,D.rad*	14 subunit	
	Meiothermus ruber DSM 1279	14 subunit	
	Meiothermus silvanus DSM	14 subunit	
<i>Thermales</i>			

	9946 Marinithermus hydrothermalis T1, DSM 14884 Oceanithermus profundus DSM 14977 Thermus aquaticus Y51MC23 Thermus scotoductus SA-01 Thermus thermophilus HB27, T.the* Truepera radiovictrix DSM 17093	14 subunit 14 subunit 14 subunit 14 subunit 14 subunit 14 subunit	NT02TT1903 (CMR)
Deferribacteres	Calditerrivibrio nitroreducens DSM 19672 Deferribacter desulfuricans SSM1, De.de* Denitrovibrio acetiphilus DSM 12809	14 subunit 14 subunit 14 subunit	8868142 (GB)
Dictyoglomi <i>Dictyoglomales</i>	Dictyoglomus thermophilum H-6-12 Dictyoglomus turgidum DSM 6724, D.tur*	Not present Not present	7082069 (GB)
Elusimicrobia	Candidatus Endomicrobium sp. Rs-D17 Elusimicrobium minutum Pei191, E.min* Uncultured Termite group 1 bacterium phylotype Rs-D17	Not present Not present Not present	6263785 (GB)

Firmicutes <i>Bacillales</i>	Alicyclobacillus acidocaldarius LAA1	Not present	ntbc01_Bc16SA (CMR)
	Anoxybacillus flavithermus WK1	11 subunit	
	Bacillus amyloliquefaciens FZB42	11 subunit	
	Bacillus anthracis	11 subunit	
	Bacillus atrophaeus 1942	Not present	
	Bacillus cellulosilyticus DSM 2522	11 subunit	
	Bacillus cereus ATCC 14579 , B.cer*	11 subunit	
	Bacillus clausii KSM- K16	Not present	
	Bacillus coagulans 36D1	Not present	
	Bacillus coahuilensis m4-4	Not present	
	Bacillus cytotoxicus NVH 391-98	11 subunit	
	Bacillus halodurans C-125	Not present	
	Bacillus licheniformis ATCC14580 (DSM13)	Not present	
	Bacillus megaterium	Not present	
	Bacillus mycoides	11 subunit	
	Bacillus pseudofirmus OF4	Not present	
	Bacillus pseudomycoides DSM 12442	11 subunit	

	Bacillus pumilus SAFR-032	11 subunit	
	Bacillus selenitireducens MLS10	11 subunit	
	Bacillus sp. m3-13	11 subunit	
	Bacillus subtilis 168 ,B.sub*	Not present	936895 (Gb)
	Bacillus thuringiensis Al Hakam	11 subunit	
	Bacillus tusciae DSM 2912	11 subunit	
	Bacillus weihenstephanensis KBAB4	11 subunit	
	Brevibacillus brevis NBRC 100599	11 subunit	
	Exiguobacterium sibiricum 255-15	Not present	
	Exiguobacterium sp. AT1b	Not present	
	Gemella haemolysans ATCC 10379	Not present	
	Gemella moribillum M424	Not present	
	Geobacillus kaustophilus HTA426 ,G.kau*	11 subunit	NT01GK0028 (CMR)
	Geobacillus sp. C56-T3	11 subunit	
	Geobacillus thermodenitrificans NG80-2	11 subunit	
	Geobacillus thermoglucosidasius C56-YS93	11 subunit	
	Listeria grayi DSM 20601	Not present	
	Listeria innocua CLIP 11262	Not present	
	Listeria ivanovii FSL F6-596	Not present	
	Listeria marthii FSL S4-120	Not present	

	Listeria monocytogenes EGD-e, L.mon*	Not present	985634(Gb)
	Listeria seeligeri	Not present	
	Listeria welshimeri serovar 6b str.SLCC5334	Not present	
	Lysinibacillus fusiformis ZC1	Not present	
	Lysinibacillus sphaericus C3-41	Not present	
	Macrococcus caseolyticus JCSC5402	Not present	
	Oceanobacillus iheyensis HTE831	Not present	
	Ornithinibacillus sp. TW25	Not present	
	Paenibacillus curdlanolyticus YK9	11 subunit	
	Paenibacillus larvae	11 subunit	
	Paenibacillus polymyxa,P.pol*	11 subunit	NR_037006.1(GB)
	Paenibacillus sp. JDR-2	11 subunit	
	Paenibacillus vortex V453	Not present	
	Pasteuria nishizawae str. North American	Not present	
	Planococcus donghaensis MPA1U2	Not present	
	Staphylococcus aureus MW2 ,S.aur*	Not present	NTSA03_Sa16SA (CMR)
	Staphylococcus capitis SK14	Not present	
	Staphylococcus caprae C87	Not present	
	Staphylococcus carnosus subsp. carnosus TM300	Not present	

<i>Selenomonadales</i>	Staphylococcus epidermidis RP62A	Not present	
	Staphylococcus haemolyticus JCSC1435	Not present	
	Staphylococcus hominis	Not present	
	Staphylococcus lugdunensis	Not present	
	Staphylococcus pseudintermedius HKU10-03	Not present	
	Staphylococcus saprophyticus ATCC15305	Not present	
	Staphylococcus warneri L37603	Not present	
	Acidaminococcus fermentans DSM 20731	Not present	
	Acidaminococcus sp. D21	Not present	
	Dialister invisus DSM 15470	Not present	
	Dialister microaerophilus UPII 345-E	Not present	
	Megasphaera genomsp. type_1 str. 28L	Not present	
	Megasphaera micronuciformis F0359	Not present	
	Mitsuokella multacida DSM 20544	Not present	
	Phascolarctobacterium sp. YIT 12067	Not present	
	Selenomonas artemidis F0399,S.art*	11 subunit	HM596274.1(GB)
	Selenomonas flueggei ATCC	11 subunit	

<i>Clostridiales</i>	43531 Selenomonas noxia ATCC 43541	Not present	8636058 (GB)
	Selenomonas sp. oral taxon 137 str. F0430	11 subunit	
	Selenomonas sputigena ATCC 35185	11 subunit	
	Thermosinus carboxydivorans Nor1	11 subunit	
	Veillonella atypica	Not present	
	Veillonella dispar ATCC 17748	Not present	
	Veillonella parvula, V.par*	Not present	
	Veillonella parvula ATCC 17745	Not present	
	Veillonella sp. 6_1_27	Not present	
	Veillonella sp. oral taxon 158 str. F0412	Not present	5311781 (Gb)
	Acetivibrio cellulolyticus CD2	Not present	
	Acetohalobium arabaticum DSM 5501	Not present	
	Alkaliphilus metalliredigens QYMF, A. met*	Not present	
	Alkaliphilus oremlandii OhILAs	Not present	
	Ammonifex degensii KC4	Not present	
	Anaerococcus hydrogenalis	Not present	
	Anaerococcus lactolyticus ATCC 51172	Not present	
	Anaerococcus prevotii	Not present	

	Anaerococcus tetradius ATCC 35098	Not present	
	Anaerococcus vaginalis ATCC 51170	Not present	
	Anaerofustis stercorihominis DSM 17244	Not present	
	Anaerostipes caccae DSM 14662	Not present	
	Anaerostipes sp. 3_2_56FAA	Not present	
	Anaerotruncus colihominis DSM 17241	Not present	
	Blautia hansenii DSM 20583	Not present	
	Blautia hydrogenotrophica DSM 10507	Not present	
	Butyrivibrio crossotus DSM 2876	Not present	
	Butyrivibrio proteoclasticus B316	Not present	
	Caldanaerobacter subterraneus	Not present	
	Caldicellulosiruptor hydrothermalis 108	Not present	
	Caldicellulosiruptor bescii DSM 6725	Not present	
	Caldicellulosiruptor kristjanssonii 177R1B	Not present	
	Caldicellulosiruptor kronotskyensis 2002	Not present	
	Caldicellulosiruptor lactoaceticus 6A	Not present	
	Caldicellulosiruptor obsidiansis OB47	Not present	

	Caldicellulosiruptor owensensis OL	Not present	
	Caldicellulosiruptor saccharolyticus DSM 8903	Not present	
	Candidatus Desulforudis audaxviator MP104C	Not present	
	Catonella morbi ATCC 51271	Not present	
	Clostridiales bacterium 1_7_47FAA	Not present	
	Clostridiales genomosp. BVAB3 str. UPII9-5	Not present	
	Clostridium acetobutylicum ATCC824	Not present	
	Clostridium asparagiforme DSM 15981	Not present	
	Clostridium bartlettii DSM 16795	Not present	
	Clostridium beijerinckii NCIMB 8052	14 subunit	
	Clostridium bolteae ATCC BAA- 613	Not present	
	Clostridium botulinum A2Kyoto ,C.bot*	Not present	CLM_0008 (CMR)
	Clostridium carboxidivorans	Not present	
	Clostridium cellulolyticum H10	Not present	
	Clostridium cellulovorans 743B	Not present	
	Clostridium difficile 630	Not present	
	Clostridium hathewayi DSM 13479	Not present	

	Clostridium hiranonis DSM 13275	Not present	
	Clostridium hylemonae DSM 15053	Not present	
	Clostridium kluyveri DSM 555	Not present	
	Clostridium lentocellum DSM 5427	Not present	
	Clostridium leptum DSM 753	Not present	
	Clostridium ljungdahlii DSM 13528	Not present	
	Clostridium methylpentosum DSM 5476	Not present	
	Clostridium nexile DSM 1787	Not present	
	Clostridium novyi NT,	Not present	
	Clostridium papyrosolvens DSM 2782	Not present	
	Clostridium perfringens ATCC13124	Not present	
	Clostridium phytofermentans ISDg	Not present	
	Clostridium saccharolyticum WM1	Not present	
	Clostridium scindens ATCC 35704	Not present	
	Clostridium sp. D5	Not present	
	Clostridium sporogenes ATCC 15579	Not present	
	Clostridium sticklandii DSM 519	Not present	
	Clostridium symbiosum	Not present	

	Clostridium tetani E88	Not present	NT01DH0257 (CMR)
	Clostridium thermocellum	Not present	
	Coprococcus comes ATCC 27758	Not present	
	Coprococcus eutactus ATCC 27759	Not present	
	Coprothermobacter proteolyticus DSM 5265	Not present	
	Desulfitobacterium hafniense Y51 ,D.haf*	11 subunit	
	Desulfotomaculum acetoxidans DSM 771	11 subunit	
	Desulfotomaculum nigrificans DSM 574	11 subunit	
	Desulfotomaculum reducens MI-1	11 subunit	
	Dethiobacter alkaliphilus AHT 1	Not present	
	Dorea formicigenerans ATCC 27755	Not present	
	Dorea longicatena DSM 13814	Not present	
	Epulopiscium sp. 'N.t. morphotype B'	Not present	
	Ethanoligenens harbinense YUAN-3	Not present	
	Eubacterium cellulosolvens 6	Not present	
	Eubacterium eligens ATCC 27750	Not present	
	Eubacterium hallii DSM 3353	Not present	
	Eubacterium limosum KIST612	Not present	

	Eubacterium rectale ATCC 33656	Not present	
	Eubacterium saburreum DSM 3986	Not present	
	Eubacterium saphenum ATCC 49989	Not present	
	Eubacterium siraeum DSM 15702	Not present	
	Eubacterium ventriosum ATCC 27560	Not present	
	Eubacterium yurii subsp. margaretiae ATCC 43715	Not present	
	Faecalibacterium prausnitzii	Not present	
	Finegoldia magna ATCC 29328	Not present	
	Halanaerobium sp. 'sapolanicus'	Not present	
	Halanaerobium praevalens DSM 2228	Not present	
	Halothermothrix orenii H 168	Not present	
	Heliobacterium modesticaldum Ice1, H.mod*	11 subunit	U14559.1(GB)
	Lachnospiraceae bacterium 4_1_37FAA	Not present	
	Marvinbryantia formatexigens DSM 14469	Not present	
	Natranaerobius thermophilus JW/NM-WN-LF	Not present	
	Oribacterium sinus F0268	Not present	
	Oribacterium sp. oral taxon 078 str. F0262	Not present	

	Parvimonas micra ATCC 33270	Not present	
	Pelotomaculum thermopropionicum SI	Not present	
	Peptoniphilus asaccharolyticus UW 228, DSM 20463	Not present	
	Peptoniphilus duerdenii ATCC BAA-1640	Not present	
	Peptoniphilus harei ACS-146-V-Sch2b	Not present	
	Peptoniphilus lacrimalis 315-B	Not present	
	Peptoniphilus sp. oral taxon 386 str. F0131	Not present	
	Peptostreptococcus anaerobius 653-L	Not present	
	Peptostreptococcus stomatis DSM 17678	Not present	
	Pseudoramibacter alactolyticus ATCC 23263	Not present	
	Roseburia intestinalis L1-82	Not present	
	Roseburia inulinivorans DSM 16841	Not present	
	Ruminococcaceae bacterium D16	Not present	
	Ruminococcus albus	Not present	
	Ruminococcus flavefaciens FD-1	Not present	
	Ruminococcus gnavus ATCC 29149	Not present	
	Ruminococcus lactaris ATCC 29176	Not present	

	Ruminococcus obeum ATCC 29174	Not present	
	Ruminococcus sp. 5_1_39BFAA	Not present	
	Ruminococcus torques ATCC 27756	Not present	
	Shuttleworthia satelles DSM 14600	Not present	
	Subdoligranulum variabile DSM 15176	Not present	
	Symbiobacterium thermophilum IAM14863 ,S.the*	14 subunit	2981818 (Gb)
	Syntrophobotulus glycolicus DSM 8271	Not present	
	Syntrophomonas wolfei subsp. wolfei str. Goettingen, S. wol*	Not present	4282875 (Gb)
	Syntrophothermus lipocalidus DSM 12680	14 subunit	
	Thermaerobacter marianensis DSM 12885	11 subunit	
	Thermaerobacter subterraneus DSM 13965	11 subunit	
	Thermincola potens JR	14 subunit	
	Thermoanaerobacter brockii subsp. finnii Ako-1	Not present	
	Thermoanaerobacter ethanolicus	Not present	
	Thermoanaerobacter italicus Ab9	Not present	
	Thermoanaerobacter mathranii	Not present	

<i>Thermoanaero bacterales</i>	subsp. mathranii str. A3		
	Thermoanaerobacter pseudethanolicus ATCC 3323	Not present	
	Thermoanaerobacter sp. X513	Not present	
	Thermoanaerobacter wiegelii Rt8.B1	Not present	
	Thermoanaerobacterium thermosaccharolyticum DSM 571	Not present	
	Thermoanaerobacterium xylanolyticum LX-11	Not present	
	Thermosediminibacter oceani DSM 16646	Not present	
	Carboxydothemus hydrogenoformans Z-2901, C.hyd*	11 subunit	CHY_Ch16SA (CMR)
	Moorella thermoacetica ATCC 39073 , M. the*	11 subunit	NTMT03_Mt16SA (CMR)
	Thermoanaerobacter pseudethanolicus ATCC 33223	Not present	
	Thermoanaerobacter sp.X514	Not present	
	Thermoanaerobacter tengcongensis MB4(T) ,T. ten*	Not present	NTTT01_Tt16SA (CMR)
	Thermanaeromonas toyohensis ToBE, DSM 14490	11 subunit	
	Mahella australiensis 50-1 BON, DSM 15567	Not present	
	Thermodesulfobium narugense Na82, DSM 14796	14 subunit	

<i>Lactobacillales</i>	Abiotrophia defectiva ATCC 49176	Not present	
	Aerococcus urinae ACS-120-V-Col10a	Not present	
	Aerococcus viridans ATCC 11563	Not present	
	Carnobacterium sp. AT7	Not present	
	Enterococcus casseliflavus	Not present	
	Enterococcus faecalis V583	Not present	
	Enterococcus faecium	Not present	
	Enterococcus gallinarum EG2	Not present	
	Enterococcus italicus DSM 15952	Not present	
	Eremococcus coleocola ACS-139-V-Col8	Not present	
	Fructobacillus fructosus KCTC 3544	Not present	
	Granulicatella adiacens ATCC 49175	Not present	
	Granulicatella elegans ATCC 700633	Not present	
	Lactobacillus acidophilus NCFM	Not present	
	Lactobacillus amylolyticus DSM 11664	Not present	
	Lactobacillus amylovorus GRL 1112	Not present	
	Lactobacillus animalis KCTC 3501	Not present	

	Lactobacillus antri DSM 16041	Not present	NTLC01_rRNA00007 (CMR)
	Lactobacillus brevis ATCC 367	Not present	
	Lactobacillus brevis subsp. gravesensis ATCC 27305	Not present	
	Lactobacillus buchneri ATCC 11577	Not present	
	Lactobacillus casei ATCC334 , L.cas*	Not present	
	Lactobacillus coleohominis 101-4-CHN	Not present	
	Lactobacillus coryniformis	Not present	
	Lactobacillus crispatus	Not present	
	Lactobacillus delbrueckii	Not present	
	Lactobacillus delbrueckii sub sp.bulgaricus ATCC BAA-365	Not present	
	Lactobacillus farciminis KCTC 3681	Not present	
	Lactobacillus fermentum	Not present	
	Lactobacillus fructivorans KCTC 3543	Not present	
	Lactobacillus gasseri ATCC 33323	Not present	
	Lactobacillus helveticus DPC 4571	Not present	
	Lactobacillus hilgardii ATCC 8290	Not present	
	Lactobacillus iners	Not present	
	Lactobacillus jensenii	Not present	

	Lactobacillus johnsonii NCC 533	Not present	
	Lactobacillus oris PB013-T2-3	Not present	
	Lactobacillus paracasei	Not present	
	Lactobacillus plantarum	Not present	
	Lactobacillus plantarum subsp. plantarum ATCC 14917	Not present	
	Lactobacillus plantarum WCFS1	Not present	
	Lactobacillus reuteri DSM 20016	Not present	
	Lactobacillus rhamnosus	Not present	
	Lactobacillus ruminis ATCC 25644	Not present	
	Lactobacillus sakei 23K	Not present	
	Lactobacillus sakei subsp. sakei 23K	Not present	
	Lactobacillus salivarius	Not present	
	Lactobacillus salivarius subsp.salivarius UCC118	Not present	
	Lactobacillus ultunensis DSM 16047	Not present	
	Lactobacillus vaginalis ATCC 49540	Not present	
	Lactococcus lactis	Not present	
	Lactococcus lactis subsp.lactis IL 1403, L.lac*	Not present	NTLL01_LI16SA (CMR)
	Leuconostoc argentinum KCTC 3773	Not present	

	Leuconostoc citreum KM20	Not present	
	Leuconostoc fallax KCTC 3537	Not present	
	Leuconostoc gasicomitatum LMG 18811	Not present	
	Leuconostoc gelidum KCTC 3527	Not present	
	Leuconostoc inhae KCTC 3774	Not present	
	Leuconostoc kimchii IMSNU 11154	Not present	
	Leuconostoc lactis	Not present	
	Leuconostoc mesenteroides	Not present	
	Leuconostoc mesenteroides subsp. Mesenteroides ATCC 8293 ,L.mes*	Not present	NT02LM0142 (CMR)
	Leuconostoc pseudomesenteroides KCTC 3652	Not present	
	Oenococcus oeni	Not present	
	Pediococcus pentosaceus ATCC 25745	Not present	
	Pediococcus acidilactici	Not present	
	Streptococcus agalactiae A909	Not present	
	Streptococcus anginosus	Not present	
	Streptococcus australis ATCC 700641	Not present	
	Streptococcus criceti HS-6	Not present	

	Streptococcus cristatus ATCC 51100	Not present	
	Streptococcus downei F0415	Not present	
	Streptococcus dysgalactiae	Not present	
	Streptococcus dysgalactiae subsp. dysgalactiae ATCC 27957	Not present	
	Streptococcus equi	Not present	
	Streptococcus equi subsp. zooepidemicus BHS5	Not present	
	Streptococcus equinus	Not present	
	Streptococcus gallolyticus	Not present	
	Streptococcus gallolyticus subsp. gallolyticus TX20005	Not present	
	Streptococcus gordonii Challis NCTC7868	Not present	
	Streptococcus ictaluri 707-05	Not present	
	Streptococcus infantarius subsp. infantarius ATCC BAA-102	Not present	
	Streptococcus infantis	Not present	
	Streptococcus macacae NCTC 11558	Not present	
	Streptococcus mitis	Not present	
	Streptococcus mutans UA159	Not present	
	Streptococcus oralis	Not present	
	Streptococcus parasanguinis	Not present	
	Streptococcus parauberis NCFD 2020	Not present	

<i>Erysipelotrichales</i>	Streptococcus peroris ATCC 700780	Not present	SPJ_0016 (CMR)
	Streptococcus pneumoniae JJA ,S.pne*	Not present	
	Streptococcus porcinus str. Jelinkova 176	Not present	
	Streptococcus pseudoporcinus	Not present	
	Streptococcus pyrogenes MGAS 10270	Not present	
	Streptococcus salivarius SK126	Not present	
	Streptococcus sanguinis	Not present	
	Streptococcus sp. C150	Not present	
	Streptococcus suis 05ZYH33	Not present	
	Streptococcus thermophilus LMD-9	Not present	
	Streptococcus uberis 0140J	Not present	
	Streptococcus vestibularis	Not present	
	Weissella cibaria KACC 11862	Not present	
	Weissella paramesenteroides ATCC 33313	Not present	
	Bulleidia extructa W1219	Not present	
	Catenibacterium mitsuokai DSM 20731	Not present	
	Clostridium ramosum DSM 1402	Not present	
	Clostridium spiroforme DSM 1552	Not present	

	Coprobacillus sp. D7	Not present	EF050046.1 (GB)
	Erysipelothrix rhusiopathiae ATCC 19414 ,E.rhu*	Not present	
	Erysipelotrichaceae bacterium 3_1_53	Not present	
	Eubacterium biforme DSM 3989	Not present	
	Eubacterium dolichum DSM 3991	Not present	
	Holdemania filiformis DSM 12042	Not present	
	Solobacterium moorei F0204	Not present	
	Turicibacter sanguinis PC909	Not present	
	Turicibacter sp.HGF1	Not present	
Fusobacteria <i>Fusobacteriales</i>	Fusobacterium gonidiaformans ATCC 25563	Not present	NTFN01_Fn16SA (CMR)
	Fusobacterium mortiferum ATCC 9817	Not present	
	Fusobacterium nucleatum subsp. nucleatum ATCC 25586, F.nuc*	Not present	
	Fusobacterium periodonticum ATCC 33693	Not present	
	Fusobacterium sp. D11	Not present	
	Fusobacterium ulcerans ATCC 49185	Not present	
	Fusobacterium varium ATCC 27725	Not present	
	Ilyobacter polytropus DSM 2926	Not present	

	Leptotrichia buccalis C-1013-b Leptotrichia goodfellowii F0264 Leptotrichia hofstadii F0254 Sebaldella termitidis ATCC 33386 Streptobacillus moniliformis DSM 12112	Not present Not present Not present Not present Not present	
Planctomycetes <i>Planctomycetales</i>	Blastopirellula marina DSM 3645, B.mar* Gemmata obscuriglobus UQM 2246 Isosphaera pallida ATCC 43644 Pirellula sp.strain 1,P.spe* Pirellula staleyi DSM 6068 Planctomyces brasiliensis DSM 5305 Planctomyces limnophilus DSM 3776 Planctomyces maris DSM 8797 Rhodopirellula baltica SH 1	11 subunit 14 subunit 14 subunit Not present 14 subunit Not present 14 subunit Not present	NR_029226.1 (GB) NTPS02_Ps16SA (CMR)
Fibrobacteres	Candidatus Solibacter usitatus Ellin6076,C.sol* Fibrobacter succinogenes subsp. succinogenes S85 , F.suc*	14 subunit 14 subunit	4430853 (GB) 8522080 (GB)
Gemmatimonadetes	Gemmatimonas aurantiaca T-27, G.aur*	14 subunit	7704761 (GB)

	Agrobacterium tumefaciens C58 Uwash	14 subunit	
	Agrobacterium vitis S4	14 subunit	
	Aurantimonas manganoxydans SI85-9A1	14 subunit	
	Azorhizobium caulinodans ORS 571	14 subunit	
	Azospirillum sp. B510	14 subunit	
	Bartonella bacilliformis KC583	14 subunit	
	Bartonella clarridgeiae 73	14 subunit	
	Bartonella grahamii as4aup	14 subunit	
	Bartonella henselae Houston-1	14 subunit	
	Bartonella quintana Toulouse	14 subunit	
	Bartonella tribocorum CIP 105476	14 subunit	
	Beijerinckia indica subsp. indica ATCC 9039	14 subunit	
	Bradyrhizobium sp.ORS278	14 subunit	
	Bradyrhizobium japonicum USDA 110,B.jap*	14 subunit	NTBJ01_Bj16SA, (CMR)
	Brucella abortus 9-941	14 subunit	
	Brucella canis ATCC 23365	14 subunit	
	Brucella melitensis biovar Abortus	14 subunit	
	Brucella ovis ATCC 25840	14 subunit	
	Brucella suis ATCC 23445	14 subunit	
	Candidatus Cloacamonas acidaminovorans	Not present	

	Candidatus Hodgkinia cicadicola Dsem	Not present	
	Candidatus Liberibacter asiaticus str. psy62	14 subunit	
	Candidatus Liberibacter solanacearum CLso-ZC1	14 subunit	
	Chelativorans sp. BNC1	Not present	
	Ensifer meliloti 1021	14 subunit	
	Ensifer medicae WSM419	14 subunit	
	Fulvimarina pelagi HTCC2506	14 subunit	
	Hoeflea phototrophica DFL-43	14 subunit	
	Hyphomicrobium denitrificans ATCC 51888	14 subunit	
	Mesorhizobium ciceri biovar biserrulae WSM1271	14 subunit	
	Mesorhizobium loti MAFF303099	14 subunit	
	Mesorhizobium opportunistum WSM2075	14 subunit	
	Mesorhizobium sp.BNC 1	14 subunit	
	Methylobacterium chloromethanicum CM4	14 subunit	
	Methylobacterium extorquens PA1	14 subunit	
	Methylobacterium nodulans ORS 2060	14 subunit	
	Methylobacterium populi BJ001	14 subunit	
	Methylobacterium radiotolerans JCM 2831	14 subunit	

	Methylobacterium sp. 4-46	14 subunit	
	Methylocella silvestris BL2	14 subunit	
	Methylocystis sp. ATCC 49242	14 subunit	
	Methylosinus trichosporium OB3b	14 subunit	
	Nitrobacter hamburgensis X14	14 subunit	
	Nitrobacter sp. Nb-311A	14 subunit	
	Nitrobacter winogradskyi Nb-255	14 subunit	
	Ochrobactrum anthropi ATCC 49188	14 subunit	
	Oligotropha carboxidovorans OM5	14 subunit	
	Parvibaculum lavamentivorans DS-1	14 subunit	
	Rhizobium etli CFN 42	Not present	
	Rhizobium leguminosarum bv.viciae 3841	14 subunit	
	Rhizobium rhizogenes K84	14 subunit	
	Rhizobium sp.NGR234(ANU265)	14 subunit	
	Rhodococcus vannieli ATCC 17100	14 subunit	
	Rhodopseudomonas palustris Bis A53	14 subunit	
	Sinorhizobium fredii NGR234	14 subunit	
	Sinorhizobium medicae WSM419	14 subunit	

	Phaeobacter gallaeciensis	14 subunit	
	Pseudovibrio sp. JE062	14 subunit	
	Rhodobacter sphaeroides	14 subunit	
	Rhodobacter sp. SW2	14 subunit	
	Rhodobacter sphaeroides ATCC 17025	14 subunit	
	Rhodobacteraceae bacterium HTCC2083	14 subunit	
	Rhodobacterales bacterium Y4I	14 subunit	
	Rhodocista centenaria SW	14 subunit	
	Roseibium sp. TrichSKD4	14 subunit	
	Roseobacter denitrificans OCh 114	14 subunit	
	Roseobacter litoralis Och 149	14 subunit	
	Roseobacter sp. AzwK-3b	14 subunit	
	Roseovarius nubinhibens ISM	14 subunit	
	Roseovarius sp. 217	14 subunit	
	Ruegeria pomeroyi DSS-3	14 subunit	
	Ruegeria sp. R11	14 subunit	
	Sagittula stellata E-37	14 subunit	
	Silicibacter lacuscaerulensis ITI-1157	14 subunit	
	Silicibacter sp.TM1040	14 subunit	
	Sulfitobacter sp. EE-36	14 subunit	
	Thalassiosira sp. R2A62	14 subunit	
	Xanthobacter autotrophicus	14 subunit	

<i>Rhodospirillales</i>	Py2		
	Acetobacter pasteurianus IFO 3283-01	14 subunit	
	Acetobacter pomorum DM001	14 subunit	
	Acidiphilium cryptum JF-5 , A.cry*	14 subunit	5162462 (Gb)
	Acidiphilium multivorum AIU301	14 subunit	
	Ahrensia sp. R2A130	14 subunit	
	Brucella ceti	14 subunit	
	Brucella melitensis	14 subunit	
	Brucella microti CCM 4915	14 subunit	
	Brucella neotomae 5K33	14 subunit	
	Brucella pinnipedialis	14 subunit	
	Brucella sp. 83/13	14 subunit	
	Brucella sp. F5/99	14 subunit	
	Brucella sp. NVSL 07-0026	14 subunit	
	Citreicella sp. SE45	14 subunit	
	Gluconacetobacter diazotrophicus PAI 5	14 subunit	
	Gluconacetobacter hansenii ATCC 23769	14 subunit	
	Gluconacetobacter xylinus NBRC 3288	Not present	
	Gluconobacter oxydans 621H	Not present	
	Granulibacter bethesdensis CGDNIH1	Not present	

<i>Rickettsiales</i>	Hirschia baltica ATCC 49814	14 subunit	
	Magnetospirillum magneticum AMB-1	14 subunit	
	Paracoccus denitrificans PD1222	14 subunit	
	Rhodopseudomonas palustris	14 subunit	
	Rhodospirillum centenum SW	14 subunit	
	Rhodospirillum rubrum ATCC 11170	14 subunit	
	Roseomonas cervicalis ATCC 49957	14 subunit	
	Anaplasma phagocytophilum HZ	14 subunit	
	Anaplasma centrale str. Israe	14 subunit	
	Anaplasma marginale St Maries	14 subunit	
	Candidatus pelagibacter ubique HTCC1062	14 subunit	
	Ehrlichia canis Jake	14 subunit	
	Ehrlichia chaffeensis Arkansas	14 subunit	
	Ehrlichia chaffeensis str. Sapulpa	14 subunit	
	Ehrlichia ruminantium (Welgevonden France)	14 subunit	
	Neorickettsia risticii str. Illinois	14 subunit	
	Neorickettsia sennetsu Miyayama	14 subunit	
	Orientia tsutsugamushi	14 subunit	

<i>Sphingomonadales</i>	Boryong		
	Rickettsia akari str. Hartford	14 subunit	
	Rickettsia bellii OSU 85-389 ,R.bel*	14 subunit	5646237 (Gb)
	Rickettsia canadensis str. McKiel	14 subunit	
	Rickettsia conorii Malish 7	14 subunit	
	Rickettsia endosymbiont of Ixodes scapularis	14 subunit	
	Rickettsia felis URRWCal2	14 subunit	
	Rickettsia massiliae MTU5	14 subunit	
	Rickettsia peacockii str. Rustic	14 subunit	
	Rickettsia prowazekii Madrid E	14 subunit	
	Rickettsia rickettsii str. Iowa	14 subunit	
	Rickettsia sibirica 246	14 subunit	
	Rickettsia typhi Wilmington	14 subunit	
	Wolbachia pipientis wMel	14 subunit	
	Wolbachia endosymbiont of culex	14 subunit	
	Wolbachia endosymbiont of drosophila	14 subunit	
	Wolbachia sp. wRi	14 subunit	
	Citromicrobium bathyomarinum JL354	14 subunit	
	Citromicrobium sp. JLT1363	14 subunit	
	Erythrobacter litoralis HTCC2594 ,E.lit*	14 subunit	NT01EL0053 (CMR)

<i>SAR 116 cluster</i> <i>Parvularculales</i>	Erythrobacter sp. NAP1	14 subunit	NT01ZM1647 (CMR)
	Erythrobacter sp. SD-21	14 subunit	
	Haliscomenobacter hydrossis O, DSM 1100	14 subunit	
	Novosphingobium aromaticivorans DSM 12444	14 subunit	
	Novosphingobium nitrogenifigens DSM 19370	14 subunit	
	Sphingobium chlorophenolicum L-1	14 subunit	
	Sphingobium japonicum UT26S	14 subunit	
	Sphingomonas sp. SKA58	14 subunit	
	Sphingomonas wittichii RW1	14 subunit	
	Sphingopyxis alaskensis RB2256	14 subunit	
	Zymomonas mobilis subsp. mobilis ATCC 10988	Not present	
	Zymomonas mobilis ZM4, Z.mob *	Not present	
	Candidatus ponceispirillum marinum IMCC 1322	14 subunit	
Betaproteobacteria <i>Burkholderiales</i>	Parvularcula bermudensis	14 subunit	
	Achromobacter piechaudii ATCC 43553	14 subunit	
	Achromobacter xylosoxidans C54	14 subunit	
	Acidovorax avenae sub		

	sp.citrulli AAC00-1-0	14 subunit	
	Acidovorax citrulli AAC00-1	14 subunit	
	Acidovorax delafieldii 2AN	14 subunit	
	Acidovorax ebreus TPSY	14 subunit	
	Acidovorax sp.JS42	14 subunit	
	Alicyclophilus denitrificans BC	14 subunit	
	Bordetella avium 197N	14 subunit	
	Bordetella bronchiseptica RB50	14 subunit	
	Bordetella parapertussis 12822,B.par*	14 subunit	NTBP02_Bp16SA (CMR)
	Bordetella pertussis Tohama I	14 subunit	
	Bordetella petrii DSM 12804	14 subunit	
	Burkholderia ambifaria AMMD	14 subunit	
	Burkholderia cenocepacia HI2424	14 subunit	
	Burkholderia cepacia AMMD	14 subunit	
	Burkholderia dolosa AU0158	14 subunit	
	Burkholderia glumae BGR1	14 subunit	
	Burkholderia graminis C4D1M	14 subunit	
	Burkholderia mallei NCTC 10229	Not present	
	Burkholderia multivorans ATCC 17616 JGI	14 subunit	
	Burkholderia oklahomensis	14 subunit	
	Burkholderia phymatum STM815	14 subunit	

	Burkholderia phytofirmans PsJN	14 subunit	BURPS668_A0591 (CMR)
	Burkholderia pseudomallei 668,B.pse*	14 subunit	
	Burkholderia rhizoxinica HKI 454	14 subunit	
	Burkholderia sp.383	14 subunit	
	Burkholderia thailandensis E264	14 subunit	
	Burkholderia ubonensis Bu	14 subunit	
	Burkholderia vietnamiensis G4	14 subunit	
	Burkholderia xenovorans LB400	14 subunit	
	Candidatus Zinderia insecticola CARI	14 subunit	
	Comamonas testosteroni	14 subunit	
	Cupriavidus metallidurans CH34	14 subunit	
	Cupriavidus necator JMP134	14 subunit	
	Cupriavidus taiwanensis LMG 19424	14 subunit	
	Delftia acidovorans SPH-1	14 subunit	
	Herbaspirillum seropedicae SmR1	14 subunit	
	Herminiimonas arsenicoxydans str	14 subunit	
	Janthinobacterium sp.Marseille	14 subunit	
	Lautropia mirabilis ATCC 51599	14 subunit	
	Leptothrix cholodnii SP-6	14 subunit	

	Limnobacter sp. MED105	14 subunit	
	Methylibium petroleiphilum PM1	14 subunit	
	Oxalobacter formigenes	14 subunit	
	Polaromonas sp.JS666	14 subunit	
	Polaromonas naphthalenivorans CJ2	14 subunit	
	Polaromonas sp. JS666	14 subunit	
	Polynucleobacter sp.QLW-P1DMWA-1	14 subunit	
	Ralstonia eutropha H16	14 subunit	
	Ralstonia metllicurans CH34	14 subunit	
	Ralstonia pickettii	14 subunit	
	Ralstonia solanacearum GM1000	14 subunit	
	Ralstonia sp. 5_7_47FAA	14 subunit	
	Rhodoferrax ferrireducens DSM 15236	14 subunit	
	Sutterella wadsworthensis 3_1_45B	14 subunit	
	Taylorella equigenitalis MCE9	14 subunit	
	Thiomonas intermedia K12	14 subunit	
	Variovorax paradoxus	14 subunit	
	Verminephrobacter eiseniae EF01-2	14 subunit	
<i>Hydrogenophilales</i>			

<i>Methylophilales</i>	Thiobacillus denitrificans ATCC 25259 ,T.den*	14 subunit	NT01TD0465 (CMR)
	Methylobacillus flagellatus KT ,M fla*	14 subunit	4001335(Gb)
	Methylophilales bacterium HTCC2181	Not present	
	Methylothermobacter mobilis JLW8	14 subunit	
	Methylothermobacter sp. 301	14 subunit	
	Methylovorus sp. MP688	14 subunit	
<i>Neisseriales</i>	Chromobacterium violaceum ATCC12472	14 subunit	
	Eikenella corrodens ATCC 23834	14 subunit	
	Kingella denitrificans ATCC 33394	14 subunit	
	Kingella oralis ATCC 51147	14 subunit	
	Laribacter hongkongensis HLHK9	14 subunit	
	Luticola nitroferum 2002	14 subunit	
	Neisseria cinerea ATCC 14685	14 subunit	
	Neisseria flavescens	14 subunit	
	Neisseria gonorrhoeae FA 1090 ,N.gon*	14 subunit	NT03NG1574 (CMR)
	Neisseria lactamica	14 subunit	
	Neisseria meningitidis 053442	14 subunit	
	Neisseria mucosa	14 subunit	

	Neisseria polysaccharea	14 subunit	
	Neisseria polysaccharea ATCC 43768	14 subunit	
	Neisseria sicca ATCC 29256	14 subunit	
	Neisseria sp. oral taxon 014 str. F0314	14 subunit	
	Neisseria subflava NJ9703	14 subunit	
	Simonsiella muelleri ATCC 29453	14 subunit	
<i>Nitrosomonadales</i>	Nitrosomonas europaea ATCC 19718 ,N.eur*	14 subunit	NTNE01_Ne16SA (CMR)
	Nitrosomonas eutropha C91	14 subunit	
	Nitrosomonas sp. AL212	14 subunit	
	Nitrospira multiformis ATCC 25196 (CD)	14 subunit	
<i>Rhodocyclales</i>	Aromatoleum aromaticum EbN1	14 subunit	
	Azoarcus sp.BH72	14 subunit	
	Dechloromonas aromatica RCB ,D.aro*	14 subunit	NT02DA0077 (CMR)
	Thauera sp. MZ1T	14 subunit	
<i>Beta proteobacteria</i>	Beta proteobacterium KB13	14 subunit	
	Candidatus Accumulibacter phosphatis clade IIA str. UW-1	14 subunit	
	Gallionella capsiferriformans ES-2	14 subunit	

	Sideroxydans lithotrophicus ES-1	14 subunit	
Deltaproteobacteria			
<i>Bdellovibrionales</i>	Bdellovibrio bacteriovorus HD100 ,B.bac*	14 subunit	NTBB02_Bb16SA (CMR)
<i>Desulfobacterales</i>			
	Desulfarculus baarsii DSM 2075	Not present	
	Desulfatibacillum alkenivorans AK-01	Not present	
	Desulfobacterium autotrophicum HRM2	Not present	
	Desulfobulbus propionicus DSM 2032	14 subunit	
	Desulfococcus oleovorans Hxd3	Not present	
	Desulfotalea psychrophila LSv54.D.psy*	11 subunit	2944968(Gb)
<i>Desulfovibrionales</i>			
	Bilophila wadsworthia 3_1_6	Not present	
	Desulfococcus oleovorans Hxd3	Not present	
	Desulfohalobium retbaense DSM 5692	Not present	
	Desulfomicrobium baculatum DSM 4028	Not present	
	Desulfonatronospira thiodismutans ASO3-1	14 subunit	
	Desulfovibrio aespoeensis	14 subunit	

<i>Desulfomonadales</i>	Aspo-2		
	Desulfovibrio desulfuricans G20 ,D.des*	Not present	NT01DS0074 (CMR)
	Desulfovibrio fructosovorans JJ	14 subunit	
	Desulfovibrio magneticus RS-1	14 subunit	
	Desulfovibrio piger ATCC 29098	Not present	
	Desulfovibrio salexigens DSM 2638	Not present	
	Desulfovibrio sp. ND132	14 subunit	
	Desulfovibrio vulgaris Hildenborough	14 subunit	
	Desulfurivibrio alkaliphilus AHT2	14 subunit	
	Lawsonia intracellularis PHE/MN1-00	Not present	
	Desulfuromonas acetoxidans DSM 684	14 subunit	
	Geobacter bemidjensis Bem	14 subunit	
	Geobacter lovleyi SZ	14 subunit	
	Geobacter metallireducens GS-15 ,G.met*	14 subunit	NT01GM1225 (CMR)
	Geobacter sp. FRC-32	14 subunit	
	Geobacter sulfurreducens PCA	14 subunit	
	Geobacter uraniireducens Rf4	14 subunit	
	Pelobacter carbinolicus DSM2380	14 subunit	

<i>Desulfurellales</i>	Pelobacter propionicus DSM 2379	14 subunit	327398173 (GB)
	Hippea maritima MH2, DSM 10411, Hi.ma*	11 subunit	
<i>Myxococcales</i>	Anaeromyxobacter dehalogenans 2CP-C	14 subunit	MXAN_0319 (CMR)
	Anaeromyxobacter sp. Fw109-5	14 subunit	
	Haliangium ochraceum DSM 14365	14 subunit	
	Myxococcus xanthus DK 1622 ,M.xan*	14 subunit	
	Plesiocystis pacifica SIR-1	Not present	
	Sorangium cellulosum 'So ce 56'	14 subunit	
	Stigmatella aurantiaca DW4/3-1	14 subunit	
<i>Syntropho bacterales</i>	Desulfobacca acetoxidans DSM 11109,D.ace*	11 subunit	NR_028662.1 (GB)
	Syntrophus aciditrophicus SB ,Sy.ac*	Not present	NT14SA0839 (CMR)
	Syntrophobacter fumaroxidans MPOB, S.fum*	14 subunit	4461286 (Gb)
<i>Delta proteobacteria</i>	Delta proteobacterium MLMS-1	14 subunit	

Epsilon proteobacteria <i>Campylobacterales</i>	Arcobacter butzleri RM4018, A.but*	14 subunit	5624497(Gb)
	Arcobacter nitrofigilis DSM 7299	14 subunit	
	Campylobacter coli	12 subunit	
	Campylobacter concisus 13826	12 subunit	
	Campylobacter curvus 525.92	12 subunit	
	Campylobacter fetus sub sp. fetus 82-40	12 subunit	
	Campylobacter fetus subsp. venerealis str. Azul-94	12 subunit	
	Campylobacter gracilis RM3268	12 subunit	
	Campylobacter hominis ATCC BAA-381	12 subunit	
	Campylobacter jejuni sub sp. jejuni 81-176, C.jej*	12 subunit	CJJ81176_1704 (CMR)
	Campylobacter lari RM2100	12 subunit	
	Campylobacter rectus RM3267	Not present	
	Campylobacter showae RM3277	12 subunit	
	Campylobacter upsaliensis	12 subunit	
	Campylobacteriales bacterium GD1	12 subunit	
	Helicobacter acinonychis str.Sheeba	12 subunit	
	Helicobacter bilis ATCC 43879	12 subunit	
	Helicobacter cinaedi CCUG	12 subunit	

	18818		
	Helicobacter felis ATCC 49179	12 subunit	
	Helicobacter hepaticus ATCC 51449	12 subunit	
	Helicobacter mustelae 12198	Not present	
	Helicobacter pullorum MIT 98-5489	12 subunit	
	Helicobacter pylori HPAG1,H.pyl*	12 subunit	NT03HP1160 (CMR)
	Helicobacter suis	12 subunit	
	Helicobacter winthamensis ATCC BAA-430	12 subunit	
	Wolinella succinogenes DSMZ 1740	12 subunit	
<i>Nitratiruptor</i>			
	Nitratiruptor salsuginis DSM 16511	12 subunit	
<i>Nautiliales</i>			
	Nitratiruptor sp. SB155-2 ,Ni.sp*	12 subunit	5360781 (Gb)
<i>Sulfurovum</i>			
	Nautilia profundicola AmH	Not present	
	Sulfuricurvum kujiense DSM 16994	12 subunit	
	Sulfurimonas autotrophica DSM 16294	12 subunit	
	Sulfurimonas denitrificans DSM 1251	12 subunit	
	Sulfurospirillum deleyianum DSM 6946	12 subunit	
	Sulfurovum sp. NBC37-1, Su.sp*	12 subunit	5364185 (Gb)

Gamma proteobacteria			
<i>Acidithiobacillales</i>	Acidithiobacillus caldus ATCC 51756	14 subunit	
	Acidithiobacillus ferrooxidans ATCC 23270 ,A.fer*	14 subunit	AFE_Af16SA (CMR)
<i>Aeromonadales</i>	Aeromonas hydrophila ATCC 7966(C/D fused)	14 subunit	
	Aeromonas salmonicida subsp. salmonicida A449,A.sal*	14 subunit	4997900 (Gb)
	Succinatimonas hippei YIT 12066	Not present	
	Tolumonas auensis DSM 9187	14 subunit	
<i>Alteromonadales</i>	Alteromonadales bacterium TW-7	Not present	
	Alteromonas macleodii ATCC 27126	Not present	
	Alteromonas taeanensis SN2	Not present	
	Colwellia psychrerythraea 34H	Not present	
	Ferrimonas balearica DSM 9799	Not present	
	Glaciecola sp. HTCC2999	Not present	
	Idiomarina loihiensis L2TR	Not present	
	Marinobacter aquaeolei VT8	Not present	
	Marinobacter sp. ELB17	14 subunit	
	Marinomonas mediterranea	Not present	

	MMB-1		
	Marinomonas sp. MED121	Not present	
	Moritella sp. PE36	14 subunit	
	Pseudoalteromonas atlantica T6c	Not present	NT03SD1247 (CMR)
	Pseudoalteromonas haloplanktis TAC125	Not present	
	Pseudoalteromonas sp. SM9913	Not present	
	Pseudoalteromonas tunicata D2	Not present	
	Psychromonas ingrahamii 37	Not present	
	Psychromonas sp. CNPT3	Not present	
	Saccharophagus degradans 2-40 ,S.deg*	Not present	5372340 (Gb)
	Shewanella amazonensis SB2B	Not present	
	Shewanella baltica OS185, S.bal*	Not present	
	Shewanella benthica KT99	14 subunit	
	Shewanella denitrificans OS217	Not present	
	Shewanella frigidimarina NCIMB 400	Not present	
	Shewanella halifaxensis HAW-EB4	Not present	
	Shewanella loihica PV-4	Not present	
	Shewanella oneidensis MR-1 (CD)	14 subunit	
	Shewanella pealeana ATCC 700345	Not present	
	Shewanella pealeana ATCC	Not present	

<i>Candidatu</i> <i>Cardiobacteriales</i> <i>Chromatiales</i>	700345		
	Shewanella piezotolerans WP3	Not present	
	Shewanella putrefaciens CN-32	Not present	
	Shewanella sediminis HAW-EB3	Not present	
	Shewanella sp.ANA-3	Not present	
	Shewanella violacea DSS12	14 subunit	
	Shewanella woodyi ATCC 51908	14 subunit	
	Teredinibacter turnerae T7901	Not present	
	Baumannia cicadellinicola (CD),B.cic*	14 subunit	GEBR_Bc16SA(CMR)
	Candidatus carsonella ruddi i PV	Not present	
	Cardiobacterium hominis ATCC 15826	Not present	
	Dichelobacter nodosus VCS1703A, D.nod*	Not present	DNO_0887(CMR)
	Alkalilimnicola ehrlichei MLHE-1	14 subunit	
	Allochromatium vinosum DSM 180	14 subunit	
	Halorhodospira halophila SL1	14 subunit	
	Halothiobacillus neapolitanus c2	14 subunit	
	Nitrococcus mobilis Nb-231	14 subunit	

<i>Enterobacteriales</i>	Nitrococcus halophilus Nc4	14 subunit	3707297(Gb)
	Nitrosococcus oceani ATCC 19707,N.oce*	14 subunit	
	Nitrosococcus watsonii C-113	14 subunit	
	Thioalkalivibrio sp. K90mix	14 subunit	
	Buchnera aphidicola str. LSR1 (Acyrtosiphon pisum)	14 subunit	
	Buchnera aphidicola str.Cc(Cinara cedri)	14 subunit	
	Buchnera sp. APS	14 subunit	
	Candidatus Blochmannia pennsylvanicus str. BPEN	14 subunit	
	Candidatus Blochmannia pennsylvanicus str.BPEN(CD)	14 subunit	
	Candidatus Blochmannia vafer str. BVAf	14 subunit	
	Candidatus Regiella insecticola LSR1	14 subunit	
	Candidatus Riesia pediculicola USDA	Not present	
	Citrobacter koseri ATCC BAA-895	14 subunit	
	Citrobacter rodentium ICC168 Citrobacter sp. 30_2	14 subunit	
	Citrobacter youngae ATCC 29220	14 subunit	
	Cronobacter sakazakii ATCC BAA-894	14 subunit	
	Cronobacter turicensis z3032	14 subunit	

	Dickeya dadantii	14 subunit	
	Dickeya zeae Ech1591	14 subunit	
	Edwardsiella ictaluri 93-146	14 subunit	
	Edwardsiella tarda	14 subunit	
	Enterobacter cancerogenus ATCC 35316	14 subunit	
	Enterobacter cloacae	14 subunit	
	Enterobacter sp.638	14 subunit	
	Enterobacteriaceae bacterium 9_2_54FAA	14 subunit	
	Erwinia amylovora	14 subunit	
	Erwinia billingiae Eb661	14 subunit	
	Erwinia carotovora atroseptica SCR1043	14 subunit	
	Erwinia pyrifoliae Ep1/96	14 subunit	
	Erwinia tasmaniensis Et1/99	14 subunit	
	Escherichia albertii TW07627	14 subunit	
	Escherichia coli K12-MG1655 ,E.col*	14 subunit	NTEC01_16SrRNA-1 (CMR)
	Escherichia fergusonii ATCC 35469	14 subunit	
	Escherichia sp. 1_1_43	14 subunit	
	Klebsiella pneumoniae sub sp.pneumoniae MGH 78578(CD)	14 subunit	
	Klebsiella pneumoniae subsp. rhinoscleromatis ATCC 13884	14 subunit	

	Klebsiella sp. 1_1_55	14 subunit	
	Klebsiella variicola At-22	14 subunit	
	Pantoea ananatis LMG 20103	14 subunit	
	Pantoea sp. At-9b	14 subunit	
	Pantoea vagans C9-1	14 subunit	
	Pectobacterium atrosepticum SCRI1043	14 subunit	
	Pectobacterium carotovorum	14 subunit	
	Pectobacterium wasabiae WPP163	14 subunit	
	Photorhabdus luminescens TT01	14 subunit	
	Proteus mirabilis	14 subunit	
	Proteus penneri ATCC 35198	14 subunit	
	Providencia alcalifaciens DSM 1131	14 subunit	
	Providencia rettgeri DSM 1131	14 subunit	
	Providencia rustigianii DSM 4541	14 subunit	
	Providencia stuartii ATCC 25827	14 subunit	
	Rahnella sp. Y9602	14 subunit	
	Salmonella enterica subsp. arizonae serovar 62:z4,z23:-	14 subunit	
	Salmonella typhimurium LT2 SGSC1412	14 subunit	
	Serratia odorifera	14 subunit	

	Serratia proteamaculans 568	14 subunit	
	Serratia symbiotica str. Tucson	14 subunit	
	Shigella boydii Sb227 (CD)	14 subunit	
	Shigella dysenteriae Sd197(CD)	14 subunit	
	Shigella flexneri 5 str.8401	14 subunit	
	Shigella sonnei Ss046(CD)	14 subunit	
	Shigella sp. D9	14 subunit	
	Sodalis glossinidius str. morsitans (CD)	14 subunit	
	Wigglesworthia glossinidia brevipalpis	14 subunit	
	Xenorhabdus bovienii SS-2004	14 subunit	
	Xenorhabdus nematophila ATCC 19061	14 subunit	
	Yersinia aldovae ATCC 35236	14 subunit	
	Yersinia bercovieri ATCC 43970	14 subunit	
	Yersinia enterocolitica sub sp. enterocolitica 8081(CD)	14 subunit	
	Yersinia frederiksenii ATCC 33641	14 subunit	
	Yersinia intermedia ATCC 29909	14 subunit	
	Yersinia kristensenii ATCC 33638	14 subunit	
	Yersinia mollaretii ATCC 43969	14 subunit	ntyp02_Yp16SA, (CMR)
	Yersinia pestis KIM ,Y.pes*	14 subunit	
	Yersinia pseudotuberculosis IP 31758(CD)	14 subunit	

<i>Legionellales</i>	<i>Yersinia rohdei</i> ATCC 43380	14 subunit	COXBURSA331_A02 75(CMR)
	<i>Yersinia ruckeri</i> ATCC 29473	14 subunit	
	<i>Coxiella burnetii</i> RSA 331 ,C.bur*	14 subunit	
	<i>Legionella drancourti</i> LLAP 12	14 subunit	
	<i>Legionella longbeachae</i>	14 subunit	
	<i>Legionella pneumophila</i> str.Corby	14 subunit	
	<i>Rickettsiella grylli</i>	14 subunit	
<i>Methylococcales</i>	<i>Methylococcus capsulatus</i> str. Bath, M.cap*	14 subunit	BMC_Mc16SA, (CMR)
	<i>Methylobacter tundripaludum</i> SV96	14 subunit	
<i>Oceanospirillales</i>	<i>Alcanivorax borkumensis</i> SK2	Not present	5365215 (Gb)
	<i>Alcanivorax</i> sp. DG881	Not present	
	<i>Bermanella marisrubri</i>	Not present	
	<i>Chromohalobacter salexigens</i> DSM 3043,(CD)	14 subunit	
	<i>Hahella chejuensis</i> KCTC 2396	Not present	
	<i>Halomonas elongata</i> DSM 2581	Not present	
	<i>Kangiella koreensis</i> DSM 16069	14 subunit	
	<i>Marinomonas</i> sp. MWYL1 ,Ma.sp*	Not present	
	<i>Neptuniibacter caesariensis</i>	Not present	
<i>Pasteurellales</i>			

	Actinobacillus minor	Not present	
	Actinobacillus pleuropneumoniae	Not present	
	Actinobacillus pleuropneumoniae serovar 3 str. JL03	Not present	
	Actinobacillus succinogenes 130Z	Not present	
	Actinobacillus ureae ATCC 25976	Not present	
	Aggregatibacter actinomycetemcomitans	Not present	
	Aggregatibacter aphrophilus NJ8700	Not present	
	Aggregatibacter segnis ATCC 33393	Not present	
	Basfia succiniciproducens MBEL55E	Not present	
	Haemophilus ducreyi 35000HP ,H.duc*	Not present	NTHD01_Hd16SA (CMR)
	Haemophilus influenzae PittEE	Not present	
	Haemophilus parainfluenzae ATCC 33392	Not present	
	Haemophilus parasuis 29755	Not present	
	Haemophilus somnus 2336	Not present	
	Histophilus somni	Not present	
	Mannheimia haemolytica		
	Mannheimia succiniciproducens MBEL55E	14 subunit	

<i>Pseudomonadales</i>	Pasteurella dagmatis ATCC 43325	Not present	NTPA03_rRNA-1, (CMR)
	Pasteurella multocida PM70	Not present	
	Acinetobacter baumannii	14 subunit	
	Acinetobacter calcoaceticus RUH2202	14 subunit	
	Acinetobacter haemolyticus ATCC 19194	14 subunit	
	Acinetobacter johnsonii SH046	14 subunit	
	Acinetobacter junii SH205	14 subunit	
	Acinetobacter lwoffii SH145	14 subunit	
	Acinetobacter radioresistens	Not present	
	Acinetobacter sp (ADP1)	14 subunit	
	Acinetobacter sp. ATCC 27244	14 subunit	
	Acinetobacter sp. DR1	14 subunit	
	Azotobacter vinelandii DJ	14 subunit	
	Cellvibrio japonicus Ueda107	Not present	
	Enhydrobacter aerosaccus Sk60	14 subunit	
	Moraxella catarrhalis	14 subunit	
	Pseudomonas aeruginosa PA01, P.aer [*]	14 subunit	
	Pseudomonas amygdali	Not present	
	Pseudomonas entomophila L48	14 subunit	
	Pseudomonas fluorescens SBW25	14 subunit	

<i>Thiotrichales</i>	<i>Pseudomonas mendocina</i> ymp	Not present	5522933 (Gb)
	<i>Pseudomonas putida</i> GB-1	14 subunit	
	<i>Pseudomonas savastanoi</i>	14 subunit	
	<i>Pseudomonas</i> sp. TJI-51	14 subunit	
	<i>Pseudomonas stutzeri</i> A1501	Not present	
	<i>Pseudomonas syringae</i> group genomosp. 3	14 subunit	
	<i>Pseudomonas syringae</i> pv B728a(CD)	14 subunit	
	<i>Pseudomonas syringae</i> pv. <i>oryzae</i> str. 1_6	14 subunit	
	<i>Psychrobacter arcticum</i> 273-4(CD)	14 subunit	
	<i>Psychrobacter cryohalolentis</i> K5	14 subunit	
	<i>Psychrobacter</i> sp. PRwf-1	14 subunit	
	<i>Beggiatoa</i> sp. PS	14 subunit	
	<i>Francisella novicida</i>	14 subunit	
	<i>Francisella philomiragia</i>	14 subunit	
	<i>Francisella philomiragia</i> subsp. <i>philomiragia</i> ATCC 25017	14 subunit	
	<i>Francisella tularensis</i> subsp. <i>holarctica</i> FTNF002-00 , F.tul*	14 subunit	
	<i>Methylophaga thiooxydans</i> DMS010	14 subunit	
	<i>Thiomicrospira crunogena</i> ATCC 33889	14 subunit	

<i>Vibrionales</i>	Thiomicrospira denitrificans XCL-2	14 subunit	VC0395_A0241
	Aliivibrio fischeri	Not present	
	Aliivibrio salmonicida LFI1238	Not present	
	Grimontia hollisae CIP 101886	Not present	
	Photobacterium angustum S14	14 subunit	
	Photobacterium damsela subsp. damsela CIP 102761	Not present	
	Photobacterium profundum SS9	Not present	
	Photobacterium sp. SKA34	14 subunit	
	Vibrio alginolyticus	Not present	
	Vibrio brasiliensis LMG 20546	Not present	
	Vibrio caribbenthicus ATCC BAA-2122	Not present	
	Vibrio cholerae 0395,V.cho*	Not present	
	Vibrio coralliilyticus ATCC BAA-450	Not present	
	Vibrio fischeri(ES114)	Not present	
	Vibrio furnissii CIP 102972	Not present	
	Vibrio harveyi	Not present	
	Vibrio metschnikovii CIP 69.14	Not present	
	Vibrio mimicus	Not present	
	Vibrio orientalis CIP 102891	Not present	
	Vibrio parahaemolyticus RIMD 2210633	Not present	

<i>Xanthomonadales</i>	Vibrio shilonii AK1	Not present	NT02X00299 (CMR)
	Vibrio sinaloensis DSM 21326	Not present	
	Vibrio sp. MED222	Not present	
	Vibrio vulnificus YJ016	Not present	
	Vibrio splendidus	Not present	
	Vibrionales bacterium SWAT-3	Not present	
	Pseudoxanthomonas suwonensis 11-1	14 subunit	
	Stenotrophomonas maltophilia	14 subunit	
	Stenotrophomonas sp. SKA14	14 subunit	
	Xanthomonas albilineans GPE PC73	14 subunit	
	Xanthomonas axonopodis pv. citri 306	14 subunit	
	Xanthomonas campestris pv. campestris	14 subunit	
	Xanthomonas fuscans	14 subunit	
	Xanthomonas gardneri ATCC 19865	14 subunit	
	Xanthomonas oryzae pv. oryzicola BLS256	14 subunit	
	Xanthomonas oryzae pv.oryzae MAFF 311018 ,X.ory*	14 subunit	
	Xanthomonas perforans 91-118	14 subunit	
	Xanthomonas vesicatoria ATCC 35937	14 subunit	

<i>Sulfur-oxidizin</i> <i>Gamma proteobacteria</i>	Xylella fastidiosa M12	14 subunit	
	Candidatus ruthia magnifica str.Cm(Calypotgena magnifica)	14 subunit	
	Candidatus vesicomysocius okutanii HA	14 subunit	
	Endoriftia persephone 'Hot96_1+Hot96_2'	14 subunit	
	Congregibacter litoralis KT71	Not present	
	Gamma proteobacterium HdN1	14 subunit	
	Marine gamma proteobacterium HTCC2080	Not present	
	Reinekea blandensis MED297	Not present	
Magnetococcus	Magnetococcus sp. MC-1	14 subunit	
Zeta proteobacteria	Mariprofundus ferrooxydans PV-1	14 subunit	
<i>Spirochaetes</i> <i>Spirochaetales</i>	Borrelia afzelii Pko	Not present	GBB_Bb16SA (CMR)
	Borrelia burgdorferi B31, B.bur*	Not present	
	Borrelia duttonii Ly	Not present	
	Borrelia garinii PBi	Not present	
	Borrelia hermsii DAH	Not present	
	Borrelia sp. SV1	Not present	
	Borrelia recurrentis A1	Not present	
	Borrelia spielmanii A14S	Not present	

	Borrelia turicatae 91E135	Not present	
	Borrelia valaisiana VS116	Not present	
	Brachyspira hyodysenteriae WA1	Not present	
	Brachyspira murdochii DSM 12563	Not present	
	Brachyspira pilosicoli 95/1000	Not present	
	Leptospira biflexa serovar Patoc strain Patoc 1 (Ames)	14 subunit	
	Leptospira borgpetersenii serovar Hardjo-bovis L550	Not present	
	Leptospira interrogans copenhageni Fiocruz L1-130 ,L.int*	14 subunit	NT03LI1220 (CMR)
	Spirochaeta smaragdinae DSM 11293	Not present	
	Spirochaeta sp. Buddy	Not present	
	Spirochaeta thermophila	Not present	
	Spirochaeta coccoides SPN1, DSM 17374	Not present	
	Treponema brennaborensis DD5/3, DSM 12168	Not present	
	Treponema denticola ATCC 35405, Tr.de*	Not present	TDE_16SA (CMR)
	Treponema pallidum Nichols	Not present	
	Treponema phagedenis F0421	Not present	
	Treponema succinifaciens DSM 2489	Not present	

	Treponema vincentii ATCC 35580	Not present	
Synergistetes <i>synergistales</i>	Aminobacterium colombiense DSM 12261 Aminomonas paucivorans DSM 12260 Anaerobaculum hydrogeniformans ATCC BAA-1850 Dethiosulfovibrio peptidovorans DSM 11002 Jonquetella anthropi E3_33 E1 Pyramidobacter piscolens W5455 Thermanaerovibrio acidaminovorans DSM 6589 Thermovirga lienii Cas60314, DSM 17291	Not present Not present Not present Not present Not present Not present Not present	
Tenericutes <i>Acholeplasmatales</i>	Acholeplasma laidlawii PG-8A Aster yellows witches-broom, phytoplasma AYWB, A.yel * Candidatus Phytoplasma australiense Candidatus Phytoplasma mali Onion Yellows strain phytoplasma asteris	Not present Not present Not present Not present	NT01AY0577(CMR)
<i>Entomoplasmatales</i>	Mesoplasma florum L1, M.flo*	Not present	NT02MF0184(CMR)
<i>Mycoplasmataceae</i>			

	Mycoplasma agalactiae	Not present	
	Mycoplasma alligatoris A21JP2	Not present	
	Mycoplasma arthritidis 158L3-1	Not present	
	Mycoplasma bovis PG45	Not present	
	Mycoplasma capricolum subsp. capricolum ATCC 27343	Not present	
	Mycoplasma conjunctivae HRC/581	Not present	
	Mycoplasma crocodyli MP145	Not present	
	Mycoplasma fermentans	Not present	
	Mycoplasma gallisepticum strain R	Not present	
	Mycoplasma genitalium G-37	Not present	
	Mycoplasma haemofelis Ohio2	Not present	
	Mycoplasma hominis	Not present	
	Mycoplasma hyopneumoniae 7448	Not present	
	Mycoplasma hyorhinis HUB-1	Not present	
	Mycoplasma leachii PG50	Not present	
	Mycoplasma mobile 163K, M.mob*	Not present	NT05MM0569 (CMR)
	Mycoplasma mycoides SC PG1	Not present	
	Mycoplasma penetrans HF-2	Not present	
	Mycoplasma pneumoniae M129	Not present	
	Mycoplasma pulmonis UAB CTIP	Not present	

	Mycoplasma suis	Not present	
	Mycoplasma synoviae 53	Not present	
	Ureaplasma urealyticum serovar 10 ATCC-33699	Not present	
	Ureaplasma parvum serovar 3 ATCC-27815	Not present	
Thermodesulfobacteria	Thermodesulfatator indicus CIR29812, DSM 15286, T.ind*	11 subunit	AF393376.1 (GB)
Thermotogae <i>Thermotogales</i>	Fervidobacterium nodosum Rt17-B1	Not present	5608929 (Gb)
	Kosmotoga olearia TBF 19.5.1	Not present	
	Petrotoga mobilis SJ95	Not present	
	Thermosipho africanus TCF52B	Not present	
	Thermosipho melanesiensis BI429	Not present	
	Thermotoga lettingae TMO ,T.let*	Not present	
	Thermotoga maritima MSB8	Not present	
	Thermotoga naphthophila RKU-10	Not present	
	Thermotoga neapolitana DSM 4359	Not present	
	Thermotoga petrophila RKU-1	Not present	
	Thermotoga sp. RQ2	Not present	
	Thermotoga thermarum LA3, DSM 5069	Not present	
	Thermotogales bacterium mesG1.Ag.4.2	Not present	

<i>Sulfolobales</i>	5456 ,H.but*		4907844 (Gb)
	Ignisphaera aggregans AQ1.S1, DSM 17230	11 subunit	
	Ignicoccus hospitalis KIN4/I	11 subunit	
	Staphylothermus hellenicus P8, DSM 12710	Not present	
	Staphylothermus marinus F1 ,S.mar*	Not present	
	Metallosphaera sedula DSM 5348 ,M.sed*	11 subunit	4782869 (Gb)
	Sulfolobus islandicus L.D.8.5	11 subunit	5104768 (Gb)
<i>Thermoproteales</i>	Sulfolobus acidocaldarius DSM 639, S.aci*	11 subunit	NT12SA1280 (CMR)
	Sulfolobus solfataricus P2 ,S.sol*	11 subunit	NTSS02_NT02SS16S A(CMR)
	Sulfolobus tokodaii strain 7	11 subunit	
	Caldvirga maquilingensis IC-167, C.maq*	11subunit	5709465 (Gb)
	Pyrobaculum aerophilum IM2	11subunit	
	Pyrobaculum arsenaticum DSM 13514 , P.ars*	11subunit	5054432 (Gb)
	Pyrobaculum islandicum DSM 4184, P.isl*	11subunit	NT02PI1865 (CMR)
	Thermofilum pendens Hrk 5 ,T.pen*	11subunit	4602117 (Gb)
	Vulcanisaeta distributa DSM 14429	11 subunit	

	Vulcanisaeta moutnovskia 768-28	11 subunit	
Euryarchaeota <i>Archaeoglobales</i>	Archaeoglobus fulgidus DSM 4304 ,A.ful* Archaeoglobus profundus Av18, DSM 5631 Archaeoglobus veneficus SNP6, DSM 11195 Ferroglobus placidus AEDII12DO, DSM 10642	F₄₂₀H₂ dehydrogenase F₄₂₀H₂ dehydrogenase F₄₂₀H₂ dehydrogenase F₄₂₀H₂ dehydrogenase	1485212 (Gb)
<i>Halobacteriales</i>	Haladaptatus paucihalophilus DX253 Haloarcula marismortui ATCC 43049, H.mar* Halobacterium salinarum R1 Halobacterium sp. NRC-1, H.spe* Haloferax volcanii DS2, ATCC 29605 Halogeometricum borinquense PR3, DSM Halomicrobium mukohataei DSM 12286 ,H.muk* Haloquadratum walsbyi DSM 16790 ,H.wal* Halorhabdus utahensis AX-2, DSM 12940 Halorubrum lacusprofundi ATCC 49239	11 subunit 11 subunit 11 subunit 11 subunit 11 subunit 11 subunit 11 subunit 11 subunit 11 subunit	NT01HMA1195 (CMR) NT01HS1978 (CMR) 8410172 (Gb) 4193662 (Gb)

<i>Methanobacteriales</i>	Haloterrigena turkmenica VKM B-1734, DSM 5511	11 subunit	NT01NP0228 (CMR)
	Natrialba magadii ATCC 43099	11 subunit	
	Natronomonas pharaonis DSM2160,N.pha*	11 subunit	
	Methanobacterium thermoautotrophicum delta H	Not present	
	Methanobrevibacter ruminantium M1	Not present	
	Methanobrevibacter smithii PS, ATCC 35061	Not present	3856113(Gb)
	Methanosphaera stadtmanae DSM 3091, M.sta*	Not present	
	Methanothermobacter marburgensis Marburg DSM 2133	Not present	
	Methanothermus fervidus V24S, DSM 2088	Not present	
	Methanocaldococcus fervens AG86	Not present	
<i>Methanococcales</i>	Methanocaldococcus infernus ME	Not present	5326740 (Gb)
	Methanocaldococcus sp. FS406-22	Not present	
	Methanocaldococcus vulcanius M7, DSM 12094	Not present	
	Methanococcus aeolicus Nankai-3 ,M.aeo*	Not present	
	Methanococcus jannaschii DSM2661,M.Jan*	Not present	ARG_Mj16SA (CMR)

<i>Methanocellales</i>	Methanococcus maripaludis C5 ,M.mar*	Not present	NT09MM1756 (CMR)
	Methanococcus vannielii SB	Not present	
	Methanococcus voltae	Not present	
	Methanothermococcus okinawensis IH1	Not present	
	Methanocella paludicola SANA EA3, M.pal*	Not present	8680277 (GB)
	Methanocella sp. RC-I	Not present	
<i>Methanomicrobiales</i>	Candidatus Methanoregula boonei 6A8,C.met*	Not present	5410819 (Gb)
	Methanocorpusculum labreanum Z ,M.lab*	Not present	NT03ML1096 (CMR)
	Methanoculleus marisnigri JR1 ,Me.ma*	Not present	NTMM10_rRNA0000 2(CMR)
	Methanoplanus petrolearius SEBR 4847, DSM 11571	Not present	
	Methanoregula boonei 6A8	Not present	
	Methanosphaerula palustris E1- 9c, DSM 19958	Not present	
<i>Methanosarcinales</i>	Methanospirillum hungatei JF-1 ,M.hun*	Not present	NT06MH1377 (CMR)
	Methanococcoides burtonii DSM 6242 ,M.bur*	F ₄₂₀ H ₂ dehydrogenase	NT03MB2054 (CMR)
	Methanohalobium evestigatum Z-7303, DSM 3721	F ₄₂₀ H ₂ dehydrogenase	
	Methanohalophilus mahii SLP, DSM 5219	F ₄₂₀ H ₂	

<i>Methanopyrales</i>	Methanosaeta thermophila PT, Me.th*	dehydrogenase F ₄₂₀ H ₂ dehydrogenase	4462428 (Gb)
	Methanosarcina acetivorans C2A	F ₄₂₀ H ₂ dehydrogenase	
	Methanosarcina barkeri fusaro	F ₄₂₀ H ₂ Dehydrogenase	
	Methanosarcina mazei Goe 1,M.maz*	F ₄₂₀ H ₂ dehydrogenase	NTMM01_Mm16SA (CMR)
	Methanopyrus kandleri AV19 ,M.kan*	Not present	NTMK01_Mk16SA (CMR)
<i>Thermococcales</i>	Pyrococcus abyssi GE5, P.abby*	Not present	NTPA01_Pa16SA(CMR)
	Pyrococcus furiosus DSM 3638, P.fur*	Not present	NTPF01_Pf16SA(CMR)
	Pyrococcus horikoshii shinkaj OT3	Not present	
	Thermococcus barophilus MP	Not present	
	Thermococcus gammatolerans EJ3	Not present	
	Thermococcus kodakarensis KOD1, T.kod*	Not present	NT01TK2314 (CMR)
	Thermococcus onnurineus NA1	Not present	
	Thermococcus sibiricus MM 739	Not present	
	Thermococcus sp. AM4	Not present	
	Ferroplasma acidarmanus fer1	11subunit	
<i>Thermoplasmatales</i>	Picrophilus torridus DSM 9790 ,P.tor*	11subunit	NTPT01_Pt16SA (CMR)

	Thermoplasma acidophilum DSM 1728	11subunit	
	Thermoplasma volcanium GSS1 ,T.vol*	11 subunit	NTTV01_NT01TV16SA (CMR)
<i>Environmental samples</i>	Uncultured methanogenic archaeon RC-I ,U.met*	Not present	5144006 (Gb)
Korarchaeota <i>Candidatus</i> <i>Korarchaeum</i>	Candidatus Korarchaeum cryptofilum OPF8 ,C.kor*	11 subunit	6094609 (Gb)
Nanoarchaeota <i>Nanoarchaeum</i>	Nanoarchaeum equitans Kin4- M ,N.equ*	Not present	ntne02_Ne16SA (CMR)
<i>Thumarchaeota</i>	Cenarchaeum symbiosum A	11 subunit	
	Nitrosopumilus maritimus SCM1,N.mar*	11 subunit	5773310 (Gb)
Archaea <i>Unclassified</i>	Candidatus Caldiarchaeum subterraneum	11 subunit	

Table.2

Selected organisms and their classification for construction of NuoH and NuoBCDI phylogenetic trees

Classification	Organism, strain info and abbreviation	Type of complex I
Bacteria		
Actinobacteria		
	Mycobacterium bovis subsp.bovis AF2122/97, M.bov	14 subunit
	Streptomyces coelicolor A3(2), S.coe	14 subunit
	Streptomyces avermitilis MA-4680, S.ave	14 subunit
	Rubrobacter xylanophilus DSM 9941, R.xyl	11 subunit
Aquificae		
	Aquifex aeolicus VF5, A.aeo	14 subunit
Bacteroidetes		
	Bacteroides fragilis NCTC9343, B.fra	11 subunit
	Bacteroides thetaiotaomicron VPI-5482, B.the	14 subunit
Chlamydiae		
	Candidatus protochlamydia amoebophilaUWE25, C. pro	14 subunit
Chlorobi		
	Chlorobium tepidum TLS, C.tep	11 subunit
	Chlorobium chlorochromatii CaD3, C.chl	11 subunit
	Prosthecochloris vibrioformis DSM265, P.vib	11 subunit
	Pelodictyon luteolum DSM273, P.lut	11 subunit
Chloroflexi		
	Dehalococcoides ethenogenes 195, D.eth	11 subunit
	Dehalococcoides sp.BAV1, D.spe	11 subunit
Cyanobacteria		
	Synechocystis sp.PCC6803, S.cys	11 subunit
	Thermosynecho coccus elongatus BP-1, T.elo	11 subunit
	Synechococcus elongates PCC6301, S.elo	11 subunit

Deinococcus-Thermus	Synechococcus Sp.CC9902, S.spe	11 subunit
	Nostoc sp. PCC 7120, N.spe	11 subunit
	Trichodesmium erythraeum IMS101, T.ery	11 subunit
	Prochlorococcus marinus MIT 9312, P.mar	11 subunit
	Deinococcus radiodurans R1, D.rad	14 subunit
	Thermus thermophilus HB27, T.the	14 subunit
Firmicutes		
Alpha proteobacteria	Bacillus cereus ATCC 14579, B.cer	11 subunit
	Bacillus anthracis Ames, B.ant	11 subunit
	Geobacillus kaustophilus HTA426, G.kau	11 subunit
	Symbiobacterium thermophilum IAM14863, S.the	14 subunit
Beta proteobacteria	Caulobacter crescentus CB15, C.cre	14 subunit
	Bradyrhizobium japonicum USDA 110, B.jap	14 subunit
	Rhodobacter capsulatus SB1003 , R.cap	14 subunit
	Bordetella parapertussis 12822, B.par	14 subunit
Delta proteobacteria	Thiobacillus denitrificans ATCC 25259, T.den	14 subunit
	Nitrosomonas europaea ATCC 19718, N.eur	14 subunit
	Bdellovibrio bacteriovorus HD100, B.bac	14 subunit
	Myxococcus Xanthus DK 1622, M.xan	14 subunit
Epsilon proteobacteria	Desulfotalea psychrophila LSv54, D.psy	11 subunit
	Geobacter sulfurreducens PCA, G.sul	14 subunit
	Campylobacter jejuni sub sp. jejuni 81-176, C.jej	12 subunit

Gamma proteobacteria	Helicobacter pylori HPAG1, H.pyl	12 subunit
	Arcobacter butzleri RM4018, A.but	14 subunit
	Acidithiobacillus ferrooxidans ATCC 23270, A.fer	14 subunit
	Coxiella burnetii RSA 493, C.bur	14 subunit
	Escherichia coli K12-MG1655, E.col	14 subunit
	Xanthomonas oryzae pv.oryzae MAFF 311018, X.ory	14 subunit
Spirochaetes	Leptospira interrogans serovar lai str.56601, L.int	14 subunit
Archea		
Crenarchaeota	Aeropyrum pernix K1, A.per	11 subunit
	Hyperthermus butylicus DSM 5456, H.but	11 subunit
	Metallosphaera sedula DSM5348, M.sed	11 subunit
	Sulfolobus solfataricus P2, S.sol	11 subunit
	Sulfolobus tokodaii strain 7, S.tok	11 subunit
	Thermofilum pendens Hrk 5, T.pen	11 subunit
	Pyrobaculum aerophilum IM2, P.aer	11 subunit
	Pyrobaculum arsenaticum DSM13514, P.ars	11 subunit
Euryarchaeota	Archaeoglobus fulgidus DSM4304, A.ful	12 subunit
	Haloarcula marismortui ATCC 43049, H.mar	11 subunit
	Halobacterium sp. NRC-1, H.spe	11 subunit
	Natronomonas pharaonis sp, N.pha	11 subunit
	Methanosarcina barkeri fusaro, M.bar	12 subunit

Korarchaeota	Methanosarcina mazei Goe 1, M.maz	12 subunit
	Picrophilus torridus DSM 9790, P.tor	11 subunit
	Thermoplasma acidophilum DSM 1728, T.aci	11 subunit
	Thermoplasma volcanium GSS1, T.vol	11 subunit
	Candidatus Korarchaeum cryptofilum OPF8, C.kor	11 subunit
Mammalia	Bos Taurus, B. tau	14 subunit
Streptophyta	Arabidopsis thaliana, A.tha	11subunit