

Fig. S1. Promoter and termination elements of the putative operon of Thermotogae. a) Logo diagram of the Shine–Dalgarno sequence that precedes the putative operon of Thermotogae; b) Logo diagram of the Pribnow box that precedes the putative operon of Thermotogae; c) nucleotide sequences following the putative operon of Thermotogae. Nucleotides capable of forming “hairpins”, specific for the Rho-independent transcription termination [1], are blue-colored. Cytosine-rich sequences and “auxiliary elements”, specific for the Rho-dependent transcription termination [1], are red-colored and green-colored, respectively. The Logo diagrams were built using the MEME program (<http://meme-suite.org/tools/meme>). A “hairpin” specific for the Rho-independent transcription termination was found using the ARNold program (<http://rna.igmors.u-psud.fr/toolbox/arnold/index.php>).

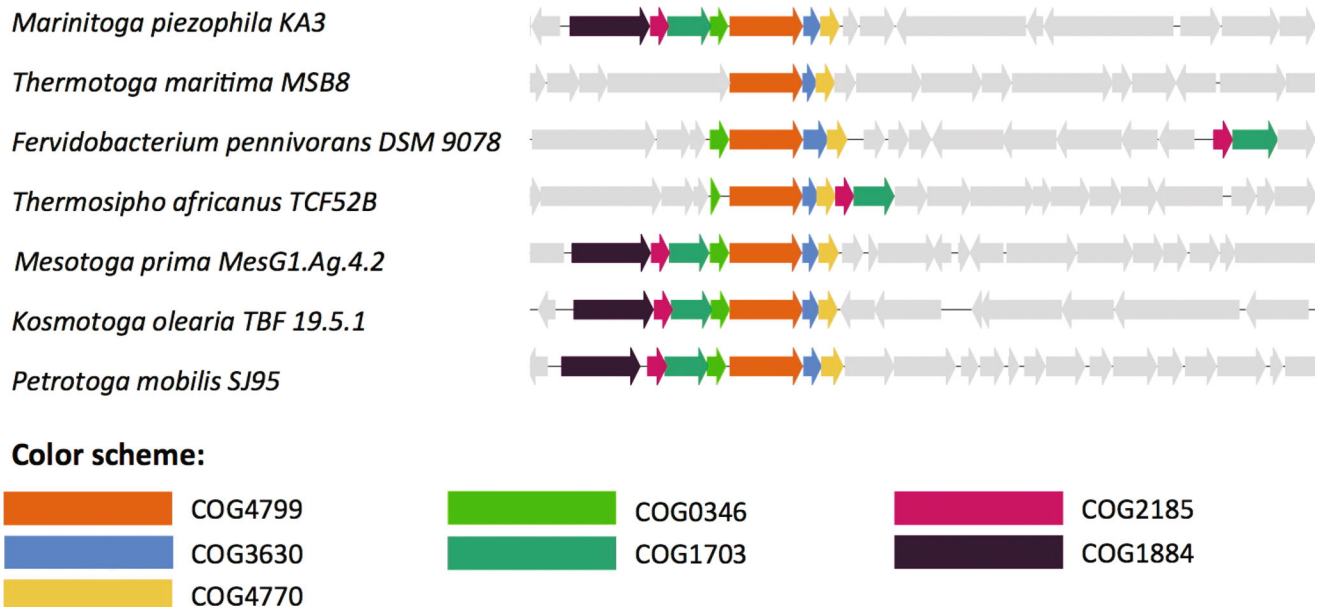


Fig. S2. Operon structures as formed by the genes of α_2 -subunits of sodium decarboxylases in seven examined thermotogal genomes. The α_2 -subunit genes are colored in orange (belong to COG4799). Other colors are used for the genes that belong to the following COGs: COG3630 (γ/δ -subunit of sodium decarboxylases), COG4770 (a biotin-binding protein), COG0346 (lactoylglutathione lyase), COG1703 (periplasmic protein kinase ArgK), COG2185 (small subunit of methylmalonyl-CoA mutase, matching the C-terminal domain of the human protein MUTA_HUMAN), COG1884 (large subunit of methylmalonyl-CoA mutase, matching the N-terminal domain of human protein MUTA_HUMAN).

OADB_KLEPN <i>Klebsiella pneumoniae</i>	1 -----MESLNALIQGLGLMHLGAGQAIMLLVLSLLLWLAI	37
499079623 <i>Thermotoga maritima</i> MSB8	1 MILNTKGVEKLSIISALANFFAQTAFFHLTFGNIAMFAVAIALLVVAIVK	50
OADB_KLEPN <i>Klebsiella pneumoniae</i>	38 KFEPLLLLPIGFGGLLSNIPEAGLALTALESLLAHRDPAQLAVIAAKLHC	87
499079623 <i>Thermotoga maritima</i> MSB8	51 HSEPLLLIPIAFGIILANIP-----	70
OADB_KLEPN <i>Klebsiella pneumoniae</i>	88 APDVHAIKAALALALPSVQGMESLAVDMGYSAGVLAIFYKVAIGSGIAP	137
499079623 <i>Thermotoga maritima</i> MSB8	71 -----VETTGI---LNEGGLFYIYIKKGLDLGIYP	96
OADB_KLEPN <i>Klebsiella pneumoniae</i>	138 LVIFMGVGMATDFGPELLANPRTLLLGAQAQFGIFATVLGALTLNYFGIIS	187
499079623 <i>Thermotoga maritima</i> MSB8	97 PLIFLGLIGALTDGFSFMLSYPITIFLGAAQMGIFFTFFVA-----KVLG	140
OADB_KLEPN <i>Klebsiella pneumoniae</i>	188 FTLPQAAAIGIIGGADGPTAIYLSGKLAPELLGAIVAVAAYSIMALVPLIQ	237
499079623 <i>Thermotoga maritima</i> MSB8	141 FSLKQAASIAIIGGADGPTAIYITNTLSPELIAPIAISAYSIALIPILQ	190
OADB_KLEPN <i>Klebsiella pneumoniae</i>	238 PPIMKALTDDKERKIRMVQLRTVSKREKILFPAVLLLLVALLLPDAAPLL	287
499079623 <i>Thermotoga maritima</i> MSB8	191 PVVSRILVSKEERKIRMKPPRKVSRFERLSFPVITIVTALLIPKSLPLV	240
OADB_KLEPN <i>Klebsiella pneumoniae</i>	288 GMFCFGNLMRESGVVERLSDTVQNALINIVTIFLGLSVGAKLVADKFLQP	337
499079623 <i>Thermotoga maritima</i> MSB8	241 GSLMFGNLLREAGIVKRLVEAASRYILDVTITLLMLSVGASARADVFLTP	290
OADB_KLEPN <i>Klebsiella pneumoniae</i>	338 QTLGILVLGVIAFCVGTAAAGVLMKLMNVFSRHKINPLIGSAGVSAVPM	387
499079623 <i>Thermotoga maritima</i> MSB8	291 QSLMIFFLGAAAFIVSMSSGILFAKLMNLFKDKINPLIGAAGVSAVPS	340
OADB_KLEPN <i>Klebsiella pneumoniae</i>	388 ARVSNKVGLEADGQNFLLMHAMGPNVAVGIGSAIAAGVMLKYVLAM	433
499079623 <i>Thermotoga maritima</i> MSB8	341 ARVAQKLAQEEDPRNHILMHAMGPNVAVGIGSATVAVGFLMFLS--	384

Fig. S3. Pairwise sequence alignment between the membrane m_{Na} -subunit of the predicted sodium-translocating decarboxylating oxidoreductase from *Thermotoga maritima* and its experimentally studied homolog from *Klebsiella pneumoniae*. Pairwise sequence alignment was built using the Needle program with standard parameters.

PORD_PYRFU <i>Pyrococcus furiosus</i>	1 MAESPFKADIERAQKELSEKMTPGAIVYIPGSSVINKTGSWRVFKPEFNR	50
499079622 <i>Thermotoga maritima</i> MSB8	1 -----MGYKIVVNY	9
PORD_PYRFU <i>Pyrococcus furiosus</i>	51 DKCVCRCYLCYIYCPEPAIYLDEEGYPVFDYDYCKGCGICANECPTKAIEM	100
499079622 <i>Thermotoga maritima</i> MSB8	10 DWCKACKLCAWACPTSATSDEIGKPVNTNENKICIGCLKCEKICPDMAIEI	59
PORD_PYRFU <i>Pyrococcus furiosus</i>	101 VREVK- 105	
499079622 <i>Thermotoga maritima</i> MSB8	60 VSDENA 65	

Fig. S4. Pairwise sequence alignment between the δ -subunit of the predicted sodium-translocating decarboxylating oxidoreductase from *Thermotoga maritima* and its experimentally studied homolog from *Pyrococcus furiosus*. The pairwise sequence alignment was built using the Needle program with standard parameters.

KORA_METTM Methanobacterium thermoautotrophicum	1 MTEEYFIQGNDACARGAISAGCRFFAGYPIPTPSTIEAEMAVLLPGEQGV	50
499079621 Thermotoga maritima MSB8	1 ---MMFLQGNACALGAIKAGCRFFAGYPIPTPSTIEAEMVARELPKVGGV	47
KORA_METTM Methanobacterium thermoautotrophicum	51 FVQMEDEIGALGAVIGAVWGGVKGMTATSGPGFSLMQEHVGYAAMTETPL	100
499079621 Thermotoga maritima MSB8	48 FVQMEDEIASAAAVVGASLAGVKSMATSGPGFSLIQEVIGYAIMTETPC	97
KORA_METTM Methanobacterium thermoautotrophicum	101 VIVDVQRGSPSTGQPTMASQSDMMQARWGSBGDYEIIALSPSSVQECDFD	150
499079621 Thermotoga maritima MSB8	98 VFANVRLGPSTGLPTKPAQGDIMQTRWGTGHDHAIIALYPSVAEVRY	147
KORA_METTM Methanobacterium thermoautotrophicum	151 TVRAFNLAAEYRVPVVVLSDEIVGHMREKITIP--DKVEIRKRKSPSTSP	198
499079621 Thermotoga maritima MSB8	148 IITAFNLAAEYRTPVVFLMDAMLGHMRESFYPPKDEELFIERLKDTSFG	197
KORA_METTM Methanobacterium thermoautotrophicum	199 GE--FIPFKPQGFVPEMP---AFGDGYRVPVTGLTHDERGYPDASNPEG	243
499079621 Thermotoga maritima MSB8	198 EEDLRFVFFS-ESEYAEPTPFMAEMEKTKFHVSGLVHDESGFP-LSSPDA	245
KORA_METTM Methanobacterium thermoautotrophicum	244 HEKLVKRLCDKILNHRDKIVDVQKGTDDADITVISYGAAPSRSVATAVKM	293
499079621 Thermotoga maritima MSB8	246 AEKLIRRLTNKIRLHADEIAFYEEYETEDAELLVVAYGIVARSAMKAVKI	295
KORA_METTM Methanobacterium thermoautotrophicum	294 ARSEGVRAGYIKINTPWPFPETEIREAAESSRKLIVVEMNLGQMFYE-VQ	342
499079621 Thermotoga maritima MSB8	296 ARDRKVKGLFKPITWPAVSRFRKLAEKVNTIVIAEMNLGQYAKELIS	345
KORA_METTM Methanobacterium thermoautotrophicum	343 RVASGMAEVELLPKIGGEIHRPDEILNKIMGMK---	375
499079621 Thermotoga maritima MSB8	346 SIDRRSKVIRTINKVNGELIKPEEILDVITETQIEI	381

Fig. S5. Pairwise sequence alignment between the α -subunit of the predicted sodium-translocating decarboxylating oxidoreductase from *Thermotoga maritima* and its experimentally studied homolog from *Methanobacterium thermoautotrophicum*. The pairwise sequence alignment was built using the Needle program with standard parameters.

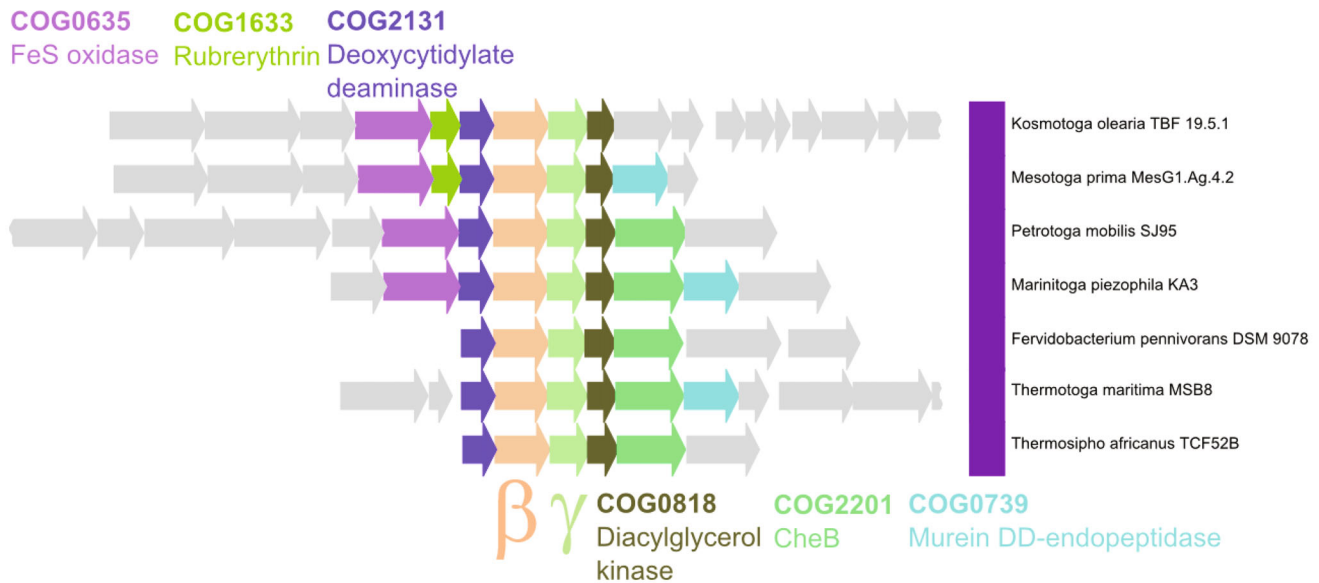


Fig. S6. Genomic neighborhoods of the genes of β - and γ -subunits of α -ketoacid:ferredoxin oxidoreductases in Thermotogae. The β -subunit genes (COG0674) are colored orange, and the γ -subunit genes (COG1014) are colored pale green. Genomic neighborhoods do not contain the genes of corresponding α -subunits and seem to be random.

REFERENCES

1. Ciampi, M. S. (2006) Rho-dependent terminators and transcription termination, *Microbiology*, **152**, 2515-2528.

Table S1. Occurrence of key subunits (catalytic and membrane) of sodium decarboxylases in sample of 711 representative prokaryotic genomes (Galperin et al., 2015)

№	Domain	Phylum	Class	Order	Family	Species	Number of			Presence/absence				
							a1	a2	β	α1	α2	β	only α	only β
1	Archaea	Crenarchaeota	Thermoprotei	Acidilobales	Acidilobaceae	Acidilobus saccharovorans 345-15	0	0	0	0	0	0	0	0
2	Archaea	Crenarchaeota	Thermoprotei	Acidilobales	Caldisphaeraceae	Caldisphaera lagunensis DSM 15908	0	0	0	0	0	0	0	0
3	Archaea	Crenarchaeota	Thermoprotei	Desulfurococcales	Desulfurococcaceae	Aeropyrum pernix K1	0	0	0	0	0	0	0	0
4	Archaea	Crenarchaeota	Thermoprotei	Desulfurococcales	Desulfurococcaceae	Desulfurococcus kamchatkensis 1221n	1	1	0	1	1	0	1	0
5	Archaea	Crenarchaeota	Thermoprotei	Desulfurococcales	Desulfurococcaceae	Ignicoccus hospitalis KIN4/1	0	0	0	0	0	0	0	0
6	Archaea	Crenarchaeota	Thermoprotei	Desulfurococcales	Desulfurococcaceae	Ignisphaera aggregans DSM 17230	0	1	0	0	1	0	1	0
7	Archaea	Crenarchaeota	Thermoprotei	Desulfurococcales	Desulfurococcaceae	Staphylothermus hellenicus DSM 12710	1	1	1	1	1	1	0	0
8	Archaea	Crenarchaeota	Thermoprotei	Desulfurococcales	Desulfurococcaceae	Thermoglaadius cellulolyticus 1633	1	1	0	1	1	0	1	0
9	Archaea	Crenarchaeota	Thermoprotei	Desulfurococcales	Desulfurococcaceae	Thermosphaera aggregans DSM 11486	1	1	0	1	1	0	1	0
10	Archaea	Crenarchaeota	Thermoprotei	Desulfurococcales	Pyrodictiaceae	Hyperthermus butylicus DSM 5456	0	1	0	0	1	0	1	0
11	Archaea	Crenarchaeota	Thermoprotei	Desulfurococcales	Pyrodictiaceae	Pyrolobus fumarii 1A	0	0	0	0	0	0	0	0
12	Archaea	Crenarchaeota	Thermoprotei	Fervidicoccales	Fervidicocaceae	Fervidicoccus fontis Kam940	1	1	0	1	1	0	1	0
13	Archaea	Crenarchaeota	Thermoprotei	Sulfolobales	Sulfolobaceae	Acidianus hospitalis W1	0	1	0	0	1	0	1	0
14	Archaea	Crenarchaeota	Thermoprotei	Sulfolobales	Sulfolobaceae	Metallosphaera sedula DSM 5348	0	1	0	0	1	0	1	0
15	Archaea	Crenarchaeota	Thermoprotei	Sulfolobales	Sulfolobaceae	Sulfolobus acidocaldarius DSM 639	0	1	0	0	1	0	1	0
16	Archaea	Crenarchaeota	Thermoprotei	Sulfolobales	Sulfolobaceae	Sulfolobus solfataricus P2	0	1	0	0	1	0	1	0
17	Archaea	Crenarchaeota	Thermoprotei	Thermoproteales	Thermofilaceae	Thermofilum sp. 1910b	0	1	0	0	1	0	1	0
18	Archaea	Crenarchaeota	Thermoprotei	Thermoproteales	Thermoproteaceae	Caldivirga maquilingensis IC-167	0	0	0	0	0	0	0	0
19	Archaea	Crenarchaeota	Thermoprotei	Thermoproteales	Thermoproteaceae	Pyrobaculum aerophilum str. IM2	0	0	0	0	0	0	0	0
20	Archaea	Crenarchaeota	Thermoprotei	Thermoproteales	Thermoproteaceae	Thermoproteus tenax Kra 1	0	0	0	0	0	0	0	0
21	Archaea	Crenarchaeota	Thermoprotei	Thermoproteales	Thermoproteaceae	Vulcanisaeta distributa DSM 14429	0	0	0	0	0	0	0	0
22	Archaea	Euryarchaeota	Aciduliprofundum	unknown	unknown	Aciduliprofundum boonei T469	1	1	1	1	1	1	0	0
23	Archaea	Euryarchaeota	Archaeoglobi	Archaeoglobales	Archaeoglobaceae	Archaeoglobus fulgidus DSM 4304	1	1	1	1	1	1	0	0
24	Archaea	Euryarchaeota	Archaeoglobi	Archaeoglobales	Archaeoglobaceae	Ferroglobus placidus DSM 10642	1	1	0	1	1	0	1	0
25	Archaea	Euryarchaeota	Candidatus Methanomethylophilus	unknown	unknown	Candidatus Methanomethylophilus alvus Mx1201	0	0	0	0	0	0	0	0
26	Archaea	Euryarchaeota	Halobacteria	Halobacteriales	Halobacteriaceae	Halalkalicoccus jeotgali B3	0	2	0	0	1	0	1	0
27	Archaea	Euryarchaeota	Halobacteria	Halobacteriales	Halobacteriaceae	Haloarcula marismortui ATCC 43049	0	3	0	0	1	0	1	0
28	Archaea	Euryarchaeota	Halobacteria	Halobacteriales	Halobacteriaceae	Halobacterium sp. NRC-1	0	2	0	0	1	0	1	0
29	Archaea	Euryarchaeota	Halobacteria	Halobacteriales	Halobacteriaceae	Haloferax volcanii DS2	0	2	0	0	1	0	1	0
30	Archaea	Euryarchaeota	Halobacteria	Halobacteriales	Halobacteriaceae	Halogeometricum borinquense DSM 11551	0	3	0	0	1	0	1	0
31	Archaea	Euryarchaeota	Halobacteria	Halobacteriales	Halobacteriaceae	Halomicrobium mukohataei DSM 12286	0	3	0	0	1	0	1	0
32	Archaea	Euryarchaeota	Halobacteria	Halobacteriales	Halobacteriaceae	Halopiger xanaduensis SH-6	0	2	0	0	1	0	1	0
33	Archaea	Euryarchaeota	Halobacteria	Halobacteriales	Halobacteriaceae	Haloquadratum walsbyi C23	0	1	0	0	1	0	1	0
34	Archaea	Euryarchaeota	Halobacteria	Halobacteriales	Halobacteriaceae	Halorhabdus tiamatea SARL4B	0	0	0	0	0	0	0	0
35	Archaea	Euryarchaeota	Halobacteria	Halobacteriales	Halobacteriaceae	Halorubrum lacusprofundi ATCC 49239	0	2	0	0	1	0	1	0
36	Archaea	Euryarchaeota	Halobacteria	Halobacteriales	Halobacteriaceae	Haloterrigena turkmenica DSM 5511	0	2	0	0	1	0	1	0
37	Archaea	Euryarchaeota	Halobacteria	Halobacteriales	Halobacteriaceae	Halovivax ruber XH-70	0	2	0	0	1	0	1	0
38	Archaea	Euryarchaeota	Halobacteria	Halobacteriales	Halobacteriaceae	Halymorphia halys symbiont	0	0	0	0	0	0	0	0
39	Archaea	Euryarchaeota	Halobacteria	Halobacteriales	Halobacteriaceae	Natrialba magadii ATCC 43099	0	2	0	0	1	0	1	0
40	Archaea	Euryarchaeota	Halobacteria	Halobacteriales	Halobacteriaceae	Natrinema sp. J7-2	0	2	0	0	1	0	1	0
41	Archaea	Euryarchaeota	Halobacteria	Halobacteriales	Halobacteriaceae	Natronobacterium gregoryi SP2	0	2	0	0	1	0	1	0
42	Archaea	Euryarchaeota	Halobacteria	Halobacteriales	Halobacteriaceae	Natronococcus occultus SP4	0	2	0	0	1	0	1	0
43	Archaea	Euryarchaeota	Halobacteria	Halobacteriales	Halobacteriaceae	Natronomonas pharaonis DSM 2160	0	3	0	0	1	0	1	0
44	Archaea	Euryarchaeota	Halobacteria	Halobacteriales	Halobacteriaceae	Salinarchaum sp. Harcht-Bsk1	0	2	0	0	1	0	1	0
45	Archaea	Euryarchaeota	Methanobacteria	Methanobacteriales	Methanobacteriaceae	Methanobacterium lacus	1	0	0	1	0	0	1	0
46	Archaea	Euryarchaeota	Methanobacteria	Methanobacteriales	Methanobacteriaceae	Methanobrevibacter ruminantium M1	1	0	0	1	0	0	1	0
47	Archaea	Euryarchaeota	Methanobacteria	Methanobacteriales	Methanobacteriaceae	Methanosphaera stadtmanae DSM 3091	1	0	0	1	0	0	1	0

48	Archaea	Euryarchaeota	Methanobacteria	Methanobacteriales	Methanobacteriaceae	Methanothermobacter thermautotrophicus str. Delta H	1	0	0	1	0	0	1	0
49	Archaea	Euryarchaeota	Methanobacteria	Methanobacteriales	Methanothermaceae	Methanothermus fervidus DSM 2088	1	0	0	1	0	0	1	0
50	Archaea	Euryarchaeota	Methanococci	Methanococcales	Methanocaldococcaceae	Methanocaldococcus jannaschii DSM 2661	1	0	0	1	0	0	1	0
51	Archaea	Euryarchaeota	Methanococci	Methanococcales	Methanocaldococcaceae	Methanotorris igneus Kol 5	1	0	0	1	0	0	1	0
52	Archaea	Euryarchaeota	Methanococci	Methanococcales	Methanococcaceae	Methanococcus maripaludis S2	1	0	0	1	0	0	1	0
53	Archaea	Euryarchaeota	Methanococci	Methanococcales	Methanococcaceae	Methanothermococcus okinaensis IH1	1	0	0	1	0	0	1	0
54	Archaea	Euryarchaeota	Methanomicrobia	Methanocellales	Methanocellaceae	Methanocella arvoryzae MRE50	1	0	0	1	0	0	1	0
55	Archaea	Euryarchaeota	Methanomicrobia	Methanomicrobiales	Methanocorpusculaceae	Methanocorpusculum labreanum Z	1	0	0	1	0	0	1	0
56	Archaea	Euryarchaeota	Methanomicrobia	Methanomicrobiales	Methanomicrobiaceae	Methanoculleus bourgensis MS2	1	0	0	1	0	0	1	0
57	Archaea	Euryarchaeota	Methanomicrobia	Methanomicrobiales	Methanomicrobiaceae	Methanoplanus petrolearius DSM 11571	1	0	0	1	0	0	1	0
58	Archaea	Euryarchaeota	Methanomicrobia	Methanomicrobiales	Methanoregulaceae	Methanoregula formicica SMSP	1	0	0	1	0	0	1	0
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60	Archaea	Euryarchaeota	Methanomicrobia	Methanosarcinales	Methanosarcinaceae	Methanospirillum hungatei JF-1	1	0	0	1	0	0	1	0
61	Archaea	Euryarchaeota	Methanomicrobia	Methanosarcinales	Methanosarcinaceae	Methanosarcina concilii GP6	1	0	0	1	0	0	1	0
62	Archaea	Euryarchaeota	Methanomicrobia	Methanosarcinales	Methanosarcinaceae	Methanococcoides burtonii DSM 6242	1	0	0	1	0	0	1	0
63	Archaea	Euryarchaeota	Methanomicrobia	Methanosarcinales	Methanosarcinaceae	Methanolobium evestigatum Z-7303	1	0	0	1	0	0	1	0
64	Archaea	Euryarchaeota	Methanomicrobia	Methanosarcinales	Methanosarcinaceae	Methanolalophilus mahii DSM 5219	1	0	0	1	0	0	1	0
65	Archaea	Euryarchaeota	Methanomicrobia	Methanosarcinales	Methanosarcinaceae	Methanolobus psychrophilus R15	1	0	0	1	0	0	1	0
66	Archaea	Euryarchaeota	Methanomicrobia	Methanosarcinales	Methanosarcinaceae	Methanomethylovorans hollandica DSM 15978	1	0	0	1	0	0	1	0
67	Archaea	Euryarchaeota	Methanomicrobia	Methanosarcinales	Methanosarcinaceae	Methanosalsum zhilinae DSM 4017	1	0	0	1	0	0	1	0
68	Archaea	Euryarchaeota	Methanomicrobia	Methanosarcinales	Methanosarcinaceae	Methanosarcina acetivorans C2A	1	0	0	1	0	0	1	0
69	Archaea	Euryarchaeota	Methanomicrobia	Unclassified Methanomicrobia	Methanomassiliicoccus	Candidatus Methanomassiliicoccus intestinalis Isoire-Mx1	0	0	0	0	0	0	0	0
70	Archaea	Euryarchaeota	Methanopyri	Methanopyrales	Methanopyraceae	Methanopyrus kandleri AV19	0	0	0	0	0	0	0	0
71	Archaea	Euryarchaeota	Thermococci	Thermococcales	Thermococcaceae	Pyrococcus abyssii GE5	0	1	1	0	1	1	0	0
72	Archaea	Euryarchaeota	Thermococci	Thermococcales	Thermococcaceae	Pyrococcus furiosus DSM 3638	0	1	1	0	1	1	0	0
73	Archaea	Euryarchaeota	Thermococci	Thermococcales	Thermococcaceae	Thermococcus kodakarensis KOD1	1	1	1	1	1	1	0	0
74	Archaea	Euryarchaeota	Thermoplasmata	Thermoplasmatales	Picrophilaceae	Picrophilus torridus DSM 9790	0	0	0	0	0	0	0	0
75	Archaea	Euryarchaeota	Thermoplasmata	Thermoplasmatales	Thermoplasmataceae	Thermoplasma acidophilum DSM 1728	0	0	0	0	0	0	0	0
76	Archaea	Euryarchaeota	Thermoplasmata	Thermoplasmatales	Thermoplasmataceae	Thermoplasma volcanium GSS1	0	0	0	0	0	0	0	0
77	Archaea	Euryarchaeota	Thermoplasmata	Thermoplasmatales	unknown	Thermoplasmatales archaeon BRNA1	0	0	0	0	0	0	0	0
78	Archaea	Korarchaeota	Candidatus Korarchaeum	unknown	unknown	Candidatus Korarchaeum cryptofilum OPF8	0	0	0	0	0	0	0	0
79	Archaea	Nanoarchaeota	Nanoarchaeum	unknown	unknown	Nanoarchaeum equitans Kin4-M	0	0	0	0	0	0	0	0
80	Archaea	Thaumarchaeota	Cenarchaeales	Cenarchaeaceae	Cenarchaeum	Cenarchaeum symbiosum A	0	1	0	0	1	0	1	0
81	Archaea	Thaumarchaeota	Nitrosopumilales	Nitrosopumilaceae	Nitrosopumilus	Candidatus Nitrosopumilus koreensis AR1	0	1	0	0	1	0	1	0
82	Archaea	Thaumarchaeota	Nitrososphaerales	Nitrososphaeraceae	Nitrososphaera	Candidatus Nitrososphaera gargensis Ga9.2	0	1	0	0	1	0	1	0
83	Archaea	Thaumarchaeota	Unclassified Thaumarchaeota	Candidatus Caldichaeum	unknown	Candidatus Caldichaeum subterraneum	0	1	0	0	1	0	1	0
84	Bacteria	Acidobacteria	Acidobacteriales	Acidobacteriaceae	Granulicella	Granulicella mallensis MP5ACTX8	0	2	0	0	1	0	1	0
85	Bacteria	Acidobacteria	Acidobacteriales	Acidobacteriaceae	Granulicella	Granulicella tundricola MP5ACTX9	0	1	0	0	1	0	1	0
86	Bacteria	Acidobacteria	Acidobacteriales	Acidobacteriaceae	Terriglobus	Terriglobus roseus DSM 18391	0	0	0	0	0	0	0	0
87	Bacteria	Acidobacteria	Candidatus Chloracidobacterium	unknown	unknown	Candidatus Chloracidobacterium thermophilum B	0	2	0	0	1	0	1	0
88	Bacteria	Acidobacteria	Candidatus Koribacter	unknown	unknown	Candidatus Koribacter versatilis Ellin345	1	3	0	1	1	0	1	0
89	Bacteria	Acidobacteria	Solibacteres	Solibacterales	Solibacteraceae	Candidatus Solibacter usitatus Ellin6076	1	4	0	1	1	0	1	0
90	Bacteria	Actinobacteria	Acidimicrobiales	Acidimicrobiaceae	Acidimicrobium	Acidimicrobium ferrooxidans DSM 10331	0	4	0	0	1	0	1	0
91	Bacteria	Actinobacteria	Acidimicrobiales	Acidimicrobiaceae	Acidimicrobium	Illumatobacter coccineus YM16-304	0	3	0	0	1	0	1	0
92	Bacteria	Actinobacteria	Actinomycetales	Actinomycetaceae	Actinomycetaceae	Arcanobacterium haemolyticum DSM 20595	0	0	0	0	0	0	0	0
93	Bacteria	Actinobacteria	Actinomycetales	Actinomycetaceae	Actinomycetaceae	Mobiluncus curtisii ATCC 43063	0	0	0	0	0	0	0	0
94	Bacteria	Actinobacteria	Actinomycetales	Catenulisporineae	Catenulispora	Catenulispora acidiphila DSM 44928	0	8	0	0	1	0	1	0
95	Bacteria	Actinobacteria	Actinomycetales	Corynebacterineae	Corynebacterineae	Amycolicococcus subflavus DQS3-9A1	0	5	0	0	1	0	1	0
96	Bacteria	Actinobacteria	Actinomycetales	Corynebacterineae	Corynebacterineae	Corynebacterium glutamicum ATCC 13032	0	3	0	0	1	0	1	0
97	Bacteria	Actinobacteria	Actinomycetales	Corynebacterineae	Corynebacterineae	Gordonia sp. KTR9	0	4	0	0	1	0	1	0
98	Bacteria	Actinobacteria	Actinomycetales	Corynebacterineae	Corynebacterineae	Mycobacterium leprae TN	0	3	0	0	1	0	1	0
99	Bacteria	Actinobacteria	Actinomycetales	Corynebacterineae	Corynebacterineae	Mycobacterium tuberculosis H37Rv	0	5	0	0	1	0	1	0
100	Bacteria	Actinobacteria	Actinomycetales	Corynebacterineae	Corynebacterineae	Nocardia brasiliensis ATCC 700358	0	7	0	0	1	0	1	0
101	Bacteria	Actinobacteria	Actinomycetales	Corynebacterineae	Corynebacterineae	Rhodococcus jostii RHA1	0	8	0	0	1	0	1	0
102	Bacteria	Actinobacteria	Actinomycetales	Corynebacterineae	Corynebacterineae	Segniliparus rotundus DSM 44985	0	3	0	0	1	0	1	0

103	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Corynebacterineae	Tsakumurella paurometabola DSM 20162	0	5	0	0	1	0	1	0
104	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Frankineae	Acidotherrnus cellulolyticus 11B	0	2	0	0	1	0	1	0
105	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Frankineae	Blastococcus saxosidens DD2	1	5	0	1	1	0	1	0
106	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Frankineae	Frankia sp. EAN1pec	0	6	0	0	1	0	1	0
107	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Frankineae	Frankia symbiont of Datisca glomerata	0	5	0	0	1	0	1	0
108	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Frankineae	Geodermatophilus obscurus DSM 43160	0	3	0	0	1	0	1	0
109	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Frankineae	Modestobacter marinus	0	3	0	0	1	0	1	0
110	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Frankineae	Nakamurella multipartita DSM 44233	0	3	0	0	1	0	1	0
111	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Glycomycineae	Stackebrandtia nassauensis DSM 44728	0	3	0	0	1	0	1	0
112	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Kineosporineae	Kineococcus radiotolerans SRS30216 = ATCC BAA-149	0	1	0	0	1	0	1	0
113	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Micrococcineae	Arthrobacter chlorophenolicus A6	0	2	0	0	1	0	1	0
114	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Micrococcineae	Beutenbergia cavernae DSM 12333	0	2	0	0	1	0	1	0
115	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Micrococcineae	Brachybacterium faecium DSM 4810	0	2	0	0	1	0	1	0
116	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Micrococcineae	Cellulomonas fimi ATCC 484	0	2	0	0	1	0	1	0
117	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Micrococcineae	Clavibacter michiganensis subsp. sepedonicus	0	1	0	0	1	0	1	0
118	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Micrococcineae	Intrasporangium calvum DSM 43043	0	2	0	0	1	0	1	0
119	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Micrococcineae	Isopterocola variabilis 225	0	2	0	0	1	0	1	0
120	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Micrococcineae	Jonesia denitrificans DSM 20603	0	1	0	0	1	0	1	0
121	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Micrococcineae	Kocuria rhizophila DC2201	0	2	0	0	1	0	1	0
122	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Micrococcineae	Kytococcus sedentarius DSM 20547	0	3	0	0	1	0	1	0
123	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Micrococcineae	Leifsonia xyli subsp. cynodontis DSM 46306	0	1	0	0	1	0	1	0
124	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Micrococcineae	Microbacterium testaceum STL8037	0	2	0	0	1	0	1	0
125	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Micrococcineae	Micrococcus luteus NCTC 2665	0	2	0	0	1	0	1	0
126	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Micrococcineae	Renibacterium salmoninarum ATCC 33209	0	2	0	0	1	0	1	0
127	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Micrococcineae	Rothia dentocariosa ATCC 17931	0	1	0	0	1	0	1	0
128	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Micrococcineae	Sanguibacter keddieii DSM 10542	0	1	0	0	1	0	1	0
129	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Micrococcineae	Tropheryma whipplei str. Twist	0	1	0	0	1	0	1	0
130	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Micrococcineae	Xylanimonas cellulolytica DSM 15894	0	2	0	0	1	0	1	0
131	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Micromonosporineae	Actinoplanes friuliensis DSM 7358	0	4	0	0	1	0	1	0
132	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Micromonosporineae	Micromonospora aurantiaca ATCC 27029	0	3	0	0	1	0	1	0
133	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Micromonosporineae	Salinispora arenicola CNS-205	0	4	0	0	1	0	1	0
134	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Micromonosporineae	Verrucospora maris AB-18-032	0	3	0	0	1	0	1	0
135	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Propionibacterineae	Kribbella flavida DSM 17836	0	4	0	0	1	0	1	0
136	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Propionibacterineae	Microlunatus phosphovorans NM-1	0	2	0	0	1	0	1	0
137	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Propionibacterineae	Nocardioides sp. JS614	1	6	0	1	1	0	1	0
138	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Propionibacterineae	Propionibacterium acidipropionici ATCC 4875	1	3	1	1	1	1	0	0
139	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Pseudonocardineae	Actinosynnema mirum DSM 43827	0	3	0	0	1	0	1	0
140	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Pseudonocardineae	Amycolatopsis mediterranei S699	0	5	0	0	1	0	1	0
141	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Pseudonocardineae	Pseudonocardia dioxanivorans CB1190	2	5	0	1	1	0	1	0
142	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Pseudonocardineae	Saccharomonospora viridis DSM 43017	0	3	0	0	1	0	1	0
143	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Pseudonocardineae	Saccharopolyspora erythraea NRRL 2338	0	3	0	0	1	0	1	0
144	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Pseudonocardineae	Saccharothrix espanaensis DSM 44229	0	6	0	0	1	0	1	0
145	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Pseudonocardineae	Thermobispora bispora DSM 43833	0	3	0	0	1	0	1	0
146	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Streptomycineae	Kitasatospora setae KM-6054	0	4	0	0	1	0	1	0
147	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Streptomycineae	Streptomyces bingchengensis BCW-1	0	4	0	0	1	0	1	0
148	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Streptosporangineae	Nocardiopsis alba ATCC BAA-2165	0	3	0	0	1	0	1	0
149	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Streptosporangineae	Streptosporangium roseum DSM 43021	0	5	0	0	1	0	1	0
150	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Streptosporangineae	Thermobifida fusca YX	0	3	0	0	1	0	1	0
151	Bacteria	Actinobacteria	Actinobacteridae	Actinomycetales	Streptosporangineae	Thermomonospora curvata DSM 43183	0	4	0	0	1	0	1	0
152	Bacteria	Actinobacteria	Actinobacteridae	Bifidobacteriales	Bifidobacteriaceae	Bifidobacterium longum subsp. infantis ATCC 15697 = JCM 1222 = DSM 20088	0	1	0	0	1	0	1	0
153	Bacteria	Actinobacteria	Actinobacteridae	Bifidobacteriales	Bifidobacteriaceae	Gardnerella vaginalis ATCC 14019	0	1	0	0	1	0	1	0
154	Bacteria	Actinobacteria	Coriobacteridae	Coriobacteriales	Coriobacterineae	Adlercreutzia equolifaciens DSM 19450	1	0	0	1	0	0	1	0
155	Bacteria	Actinobacteria	Coriobacteridae	Coriobacteriales	Coriobacterineae	Atopobium parvulum DSM 20469	0	0	0	0	0	0	0	0
156	Bacteria	Actinobacteria	Coriobacteridae	Coriobacteriales	Coriobacterineae	Coriobacterium glomerans PW2	0	0	0	0	0	0	0	0
157	Bacteria	Actinobacteria	Coriobacteridae	Coriobacteriales	Coriobacterineae	Cryptobacterium curtum DSM 15641	1	0	0	1	0	0	1	0

158	Bacteria	Actinobacteria	Coriobacteridae	Coriobacteriales	Coriobacterineae	Eggerthella lenta DSM 2243	1	0	0	1	0	0	1	0
159	Bacteria	Actinobacteria	Coriobacteridae	Coriobacteriales	Coriobacterineae	Gordonibacter pamelaecae 7-10-1-b	1	0	0	1	0	0	1	0
160	Bacteria	Actinobacteria	Coriobacteridae	Coriobacteriales	Coriobacterineae	Orsiella ulii DSM 7084	0	0	0	0	0	0	0	0
161	Bacteria	Actinobacteria	Coriobacteridae	Coriobacteriales	Coriobacterineae	Slackia heliotrinireducens DSM 20476	1	0	0	1	0	0	1	0
162	Bacteria	Actinobacteria	Rubrobacteridae	Rubrobacterales	Rubrobacterineae	Rubrobacter xylanophilus DSM 9941	1	2	0	1	1	0	1	0
163	Bacteria	Actinobacteria	Rubrobacteridae	Rubrobacterales	Rubrobacterineae	Conexibacter wosei DSM 14684	0	5	0	0	1	0	1	0
164	Bacteria	Aquificae	Aquificales	Aquificaceae	Aquifex	Aquifex aeolicus VF5	2	0	0	1	0	0	1	0
165	Bacteria	Aquificae	Aquificales	Aquificaceae	Hydrogenobacter	Hydrogenobacter thermophilus TK-6	2	0	0	1	0	0	1	0
166	Bacteria	Aquificae	Aquificales	Aquificaceae	Hydrogenobaculum	Desulfurobaculum sp. Y04AAS1	2	0	0	1	0	0	1	0
167	Bacteria	Aquificae	Aquificales	Aquificaceae	Thermocrinis	Thermocrinis albus DSM 14484	2	0	0	1	0	0	1	0
168	Bacteria	Aquificae	Aquificales	Hydrogenothermaceae	Persephonella	Persephonella marina EX-H1	1	0	0	1	0	0	1	0
169	Bacteria	Aquificae	Aquificales	Hydrogenothermaceae	Sulfurihydrogenibium	Sulfurihydrogenibium azureense Az-Fu1	2	0	0	1	0	0	1	0
170	Bacteria	Aquificae	Desulfurobacteriales	Desulfurobacteriaceae	Desulfurobacterium	Desulfurobacterium thermolithotrophum DSM 11699	1	0	0	1	0	0	1	0
171	Bacteria	Aquificae	Desulfurobacteriales	Desulfurobacteriaceae	Thermovibrio	Thermovibrio ammonificans HB-1	1	0	0	1	0	0	1	0
172	Bacteria	Armatimonadetes	Chthonomonadetes	Chthonomonadales	Chthonomonadaceae	Chthonomonas calidirosea T49	0	1	0	0	1	0	1	0
173	Bacteria	Bacteroidetes	Bacteroidetes Order II. Incertae sedis	Rhodothermaceae	Rhodothermus	Rhodothermus marinus DSM 4252	0	1	0	0	1	0	1	0
174	Bacteria	Bacteroidetes	Bacteroidetes Order II. Incertae sedis	Rhodothermaceae	Salinibacter	Salinibacter ruber M8	0	2	0	0	1	0	1	0
175	Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Bacteroidaceae	Bacteroides thetaiotaomicron VPI-5482	2	3	3	1	1	1	0	0
176	Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Candidatus Azobacteroides	Candidatus Azobacteroides pseudotrichonymphac genomovar. CFP2	0	1	1	0	1	1	0	0
177	Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Porphyromonadaceae	Odoribacter splanchnicus DSM 20712	1	3	1	1	1	1	0	0
178	Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Porphyromonadaceae	Paludibacter propionigenes WB4	1	3	1	1	1	1	0	0
179	Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Porphyromonadaceae	Parabacteroides distans ATCC 8503	2	3	2	1	1	1	0	0
180	Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Porphyromonadaceae	Porphyromonas gingivalis TDC60	1	1	1	1	1	1	0	0
181	Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Porphyromonadaceae	Tannerella forsythia ATCC 43037	1	1	1	1	1	1	0	0
182	Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Prevotellaceae	Prevotella ruminicola 23	1	1	1	1	1	1	0	0
183	Bacteria	Bacteroidetes	Bacteroidia	Bacteroidales	Rikenellaceae	Alistipes finegoldii DSM 17242	1	1	1	1	1	1	0	0
184	Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Amoebophilaceae	Candidatus Amoebophilus asiaticus 5a2	0	0	0	0	0	0	0	0
185	Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Amoebophilaceae	Cardinium endosymbiont cEper1 of Encarsia pergandiella	0	0	0	0	0	0	0	0
186	Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cyclobacteriaceae	Belliella baltica DSM 15883	0	2	0	0	1	0	1	0
187	Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cyclobacteriaceae	Cyclobacterium marinum DSM 745	0	0	0	0	0	0	0	0
188	Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cyclobacteriaceae	Echinicola vietnamensis DSM 17526	0	2	0	0	1	0	1	0
189	Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Cytophaga hutchinsonii ATCC 33406	0	1	0	0	1	0	1	0
190	Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Dyadobacter fermentans DSM 18053	0	2	0	0	1	0	1	0
191	Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Emticicia oligotrophica DSM 17448	0	2	0	0	1	0	1	0
192	Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Fibrella aestuarina BUZ 2	0	2	0	0	1	0	1	0
193	Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Flexibacter litoralis DSM 6794	0	2	0	0	1	0	1	0
194	Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Leadbetterella byssophila DSM 17132	0	2	0	0	1	0	1	0
195	Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Runella slithyiformis DSM 19594	0	2	0	0	1	0	1	0
196	Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Cytophagaceae	Spirosoma linguale DSM 74	0	2	0	0	1	0	1	0
197	Bacteria	Bacteroidetes	Cytophagia	Cytophagales	Flammeovirgaceae	Marivirga tractuosa DSM 4126	0	1	0	0	1	0	1	0
198	Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Blattabacteriaceae	Blattabacterium sp.	0	0	0	0	0	0	0	0
199	Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Candidatus Sulcia	Candidatus Sulcia muelleri CARI	0	0	0	0	0	0	0	0
200	Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Candidatus Uzinura	Candidatus Uzinura diaspidicola str. ASNER	0	0	0	0	0	0	0	0
201	Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Cryomorphaceae	Fluviicola taffensis DSM 16823	0	2	0	0	1	0	1	0
202	Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Cryomorphaceae	Owenweeksia hongkongensis DSM 17368	0	2	0	0	1	0	1	0
203	Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Flavobacteriaceae	Aequorivita sublithincola DSM 14238	0	2	0	0	1	0	1	0
204	Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Flavobacteriaceae	Capnocytophaga canimorsus Cc5	0	1	0	0	1	0	1	0
205	Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Flavobacteriaceae	Cellulophaga algicola DSM 14237	0	1	0	0	1	0	1	0
206	Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Flavobacteriaceae	Croceibacter atlanticus HTCC2559	0	2	0	0	1	0	1	0
207	Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Flavobacteriaceae	Dokdonia sp. 4H-3-7-5	0	1	0	0	1	0	1	0
208	Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Flavobacteriaceae	Flavobacterium johnsoniae UW101	0	1	0	0	1	0	1	0
209	Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Flavobacteriaceae	Gramella forsetii KT0803	0	2	0	0	1	0	1	0
210	Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Flavobacteriaceae	Lacinutrix sp. 5H-3-7-4	0	1	0	0	1	0	1	0
211	Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Flavobacteriaceae	Muricauda ruestringensis DSM 13258	0	2	0	0	1	0	1	0
212	Bacteria	Bacteroidetes	Flavobacteriia	Flavobacteriales	Flavobacteriaceae	Nonlabens dokdonensis DSW-6	0	1	0	0	1	0	1	0

378	Bacteria	Firmicutes	Clostridia	Thermoanaerobacteriales	Thermoanaerobacteriales Family III. Incertae Sedis	<i>Caldicellulosiruptor saccharolyticus</i> DSM 8903	2	1	1	1	1	1	0	0
379	Bacteria	Firmicutes	Clostridia	Thermoanaerobacteriales	Thermoanaerobacteriales Family III. Incertae Sedis	<i>Thermoanaerobacterium thermosaccharolyticum</i> M0795	1	1	0	1	1	0	1	0
380	Bacteria	Firmicutes	Clostridia	Thermoanaerobacteriales	Thermoanaerobacteriales Family III. Incertae Sedis	<i>Thermoanaerobacter oceanii</i> DSM 16646	1	2	2	1	1	1	0	0
381	Bacteria	Firmicutes	Clostridia	Thermoanaerobacteriales	Thermoanaerobacteriales Family IV. Incertae Sedis	<i>Mahella australiensis</i> 50-1 BON	1	1	2	1	1	1	0	0
382	Bacteria	Firmicutes	Clostridia	Thermoanaerobacteriales	Thermodesulfobiaceae	<i>Coprotthermobacter proteolyticus</i> DSM 5265	1	1	2	1	1	1	0	0
383	Bacteria	Firmicutes	Clostridia	Thermoanaerobacteriales	Thermodesulfobiaceae	<i>Thermodesulfobium narugense</i> DSM 14796	1	0	0	1	0	0	1	0
384	Bacteria	Firmicutes	Erysipelotrichia	Erysipelotrichales	Erysipelotrichaceae	<i>Erysipelothrix rhusiopathiae</i> SY1027	1	0	1	1	0	1	0	0
385	Bacteria	Firmicutes	Negativicutes	Selenomonadales	Acidaminococcaceae	<i>Acidaminococcus intestini</i> RyC-MR95	3	2	1	1	1	1	0	0
386	Bacteria	Firmicutes	Negativicutes	Selenomonadales	Veillonellaceae	<i>Megamonas hypermegale</i> ART12/1	1	0	1	1	0	1	0	0
387	Bacteria	Firmicutes	Negativicutes	Selenomonadales	Veillonellaceae	<i>Megasphaera elsdenii</i> DSM 20460	1	1	0	1	1	0	1	0
388	Bacteria	Firmicutes	Negativicutes	Selenomonadales	Veillonellaceae	<i>Selenomonas ruminantium</i> subsp. <i>lactilytica</i> TAM6421	1	1	1	1	1	1	0	0
389	Bacteria	Firmicutes	Negativicutes	Selenomonadales	Veillonellaceae	<i>Veillonella parvula</i> DSM 2008	1	1	1	1	1	1	0	0
390	Bacteria	Fusobacteria	Fusobacteriales	Fusobacteriales	Fusobacteriaceae	<i>Fusobacterium nucleatum</i> subsp. <i>nucleatum</i> ATCC 25586	1	1	1	1	1	1	0	0
391	Bacteria	Fusobacteria	Fusobacteriales	Fusobacteriales	Ilyobacter	<i>Ilyobacter polytropus</i> DSM 2926	3	1	2	1	1	1	0	0
392	Bacteria	Fusobacteria	Fusobacteriales	Fusobacteriales	Leptotrichiaceae	<i>Leptotrichia buccalis</i> C-1013-b	1	0	0	1	0	0	1	0
393	Bacteria	Fusobacteria	Fusobacteriales	Fusobacteriales	Sebaldella	<i>Sebaldella termitidis</i> ATCC 33386	0	0	0	0	0	0	0	0
394	Bacteria	Fusobacteria	Fusobacteriales	Fusobacteriales	Streptobacillus	<i>Streptobacillus moniliformis</i> DSM 12112	0	0	0	0	0	0	0	0
395	Bacteria	Gemmatimonadetes	Gemmatimonadales	Gemmatimonadales	Gemmatimonas	<i>Gemmatimonas aurantiaca</i> T-27	0	2	0	0	1	0	1	0
396	Bacteria	Ignavibacteriae	Ignavibacteriales	Ignavibacteriales	Ignavibacteriaceae	<i>Ignavibacterium album</i> JCM 16511	0	3	1	0	1	1	0	0
397	Bacteria	Ignavibacteriae	Ignavibacteriales	Ignavibacteriales	Melioribacteraceae	<i>Melioribacter roseus</i> P3M-2	0	3	1	0	1	1	0	0
398	Bacteria	Nitrospirae	Nitrospirales	Nitrospirales	Nitrospiraceae	<i>Leptospirillum ferrophilum</i> ML-04	0	0	0	0	0	0	0	0
399	Bacteria	Nitrospirae	Nitrospirales	Nitrospirales	Nitrospiraceae	<i>Candidatus Nitrospira defluvi</i>	1	1	0	1	1	0	1	0
400	Bacteria	Nitrospirae	Nitrospirales	Nitrospirales	Nitrospiraceae	<i>Thermodesulfobivrio yellowstonii</i> DSM 11347	1	0	0	1	0	0	1	0
401	Bacteria	Planctomycetes	Phycisphaerae	Phycisphaerales	Phycisphaeraceae	<i>Phycisphaera mikurensis</i> NBRC 102666	1	0	0	1	0	0	1	0
402	Bacteria	Planctomycetes	Planctomycetia	Planctomycetales	Planctomycetaceae	<i>Bostonia pallida</i> ATCC 43644	0	2	1	0	1	1	0	0
403	Bacteria	Planctomycetes	Planctomycetia	Planctomycetales	Planctomycetaceae	<i>Pirellula staleyii</i> DSM 6068	0	1	0	0	1	0	1	0
404	Bacteria	Planctomycetes	Planctomycetia	Planctomycetales	Planctomycetaceae	<i>Planctomyces brasiliensis</i> DSM 5305	0	0	0	0	0	0	0	0
405	Bacteria	Planctomycetes	Planctomycetia	Planctomycetales	Planctomycetaceae	<i>Rhodopirellula baltica</i> SH 1	0	0	0	0	0	0	0	0
406	Bacteria	Planctomycetes	Planctomycetia	Planctomycetales	Planctomycetaceae	<i>Singulospira acidiphila</i> DSM 18658	0	1	0	0	1	0	1	0
407	Bacteria	Proteobacteria	Alphaproteobacteria	Caulobacterales	Caulobacteraceae	<i>Asticcacaulis excentricus</i> CB 48	0	1	0	0	1	0	1	0
408	Bacteria	Proteobacteria	Alphaproteobacteria	Caulobacterales	Caulobacteraceae	<i>Brevundimonas subvibrioides</i> ATCC 15264	0	2	0	0	1	0	1	0
409	Bacteria	Proteobacteria	Alphaproteobacteria	Caulobacterales	Caulobacteraceae	<i>Caulobacter crescentus</i> CB15	0	2	0	0	1	0	1	0
410	Bacteria	Proteobacteria	Alphaproteobacteria	Caulobacterales	Caulobacteraceae	<i>Phenylobacterium zucineum</i> HLK1	0	3	0	0	1	0	1	0
411	Bacteria	Proteobacteria	Alphaproteobacteria	Magnetococcales	Magnetococcaceae	<i>Magnetococcus marinus</i> MC-1	1	1	1	1	1	1	0	0
412	Bacteria	Proteobacteria	Alphaproteobacteria	Micavibrio	unknown	<i>Micavibrio aeruginosavorus</i> ARL-13	0	1	0	0	1	0	1	0
413	Bacteria	Proteobacteria	Alphaproteobacteria	Parvularculales	Parvularculaceae	<i>Parvularcula bermudensis</i> HTCC2503	0	0	0	0	0	0	0	0
414	Bacteria	Proteobacteria	Alphaproteobacteria	Polymorphum	unknown	<i>Polymorphum gilvum</i> SL003B-26A1	0	3	0	0	1	0	1	0
415	Bacteria	Proteobacteria	Rhizobiales	Alphaproteobacteria	Bartonellaceae	<i>Bartonella quintana</i> str. <i>Toulouse</i>	0	0	0	0	0	0	0	0
416	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Beijerinckiaceae	<i>Beijerinckia indica</i> subsp. <i>indica</i> ATCC 9039	0	1	0	0	1	0	1	0
417	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Beijerinckiaceae	<i>Methylocella silvestris</i> BL2	0	3	0	0	1	0	1	0
418	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Bradyrhizobiaceae	<i>Bradyrhizobium japonicum</i> USDA 6	0	5	0	0	1	0	1	0
419	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Bradyrhizobiaceae	<i>Bradyrhizobium oligotrophicum</i> S58	0	5	0	0	1	0	1	0
420	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Bradyrhizobiaceae	<i>Nitrobacter hamburgensis</i> X14	0	2	0	0	1	0	1	0
421	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Bradyrhizobiaceae	<i>Oligotropha carboxidovorans</i> OM5	0	1	0	0	1	0	1	0
422	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Bradyrhizobiaceae	<i>Rhodospseudomonas palustris</i> CGA009	0	4	0	0	1	0	1	0
423	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Brucellaceae	<i>Brucella melitensis</i> bv. 1 str. 16M	0	2	0	0	1	0	1	0
424	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Brucellaceae	<i>Ochrobactrum anthropi</i> ATCC 49188	0	2	0	0	1	0	1	0
425	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Candidatus Hodgkinia	<i>Candidatus Hodgkinia cicadicola</i> Dsem	0	0	0	0	0	0	0	0
426	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Hyphomicrobiaceae	<i>Hyphomicrobium</i> sp. MC1	0	1	0	0	1	0	1	0
427	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Hyphomicrobiaceae	<i>Pelagibacterium halotolerans</i> B2	0	2	0	0	1	0	1	0
428	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Hyphomicrobiaceae	<i>Rhodomicrobium vannielii</i> ATCC 17100	0	3	0	0	1	0	1	0
429	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Methylobacteriaceae	<i>Methylobacterium nodulans</i> ORS 2060	0	3	0	0	1	0	1	0
430	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Methylocystaceae	<i>Methylocystis</i> sp. SC2	0	2	0	0	1	0	1	0
431	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Phyllobacteriaceae	<i>Chelativorans</i> sp. BNC1	0	2	0	0	1	0	1	0
432	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Phyllobacteriaceae	<i>Mesorhizobium loti</i> MAFF303099	0	3	0	0	1	0	1	0

433	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Rhizobiaceae	<i>Agrobacterium fabrum</i> str. C58	0	2	0	0	1	0	1	0	
434	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Rhizobiaceae	<i>Candidatus Liberibacter solanacearum</i> CLso-ZC1	0	0	0	0	0	0	0	0	0
435	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Rhizobiaceae	<i>Rhizobium leguminosarum</i> bv. <i>viciae</i> 3841	0	2	0	0	0	1	0	1	0
436	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Rhizobiaceae	<i>Sinorhizobium meliloti</i> 1021	0	2	0	0	0	1	0	1	0
437	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Rhodobiaceae	<i>Parvibaculum lavamentivorans</i> DS-1	0	3	0	0	0	1	0	1	0
438	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Xanthobacteraceae	<i>Azorhizobium caulinodans</i> ORS 571	0	2	0	0	0	1	0	1	0
439	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Xanthobacteraceae	<i>Starkeya novella</i> DSM 506	0	3	0	0	0	1	0	1	0
440	Bacteria	Proteobacteria	Alphaproteobacteria	Rhizobiales	Xanthobacteraceae	<i>Xanthobacter autotrophicus</i> Py2	0	2	0	0	0	1	0	1	0
441	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Hyphomonadaceae	<i>Hirschia baltica</i> ATCC 49814	0	3	0	0	0	1	0	1	0
442	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Hyphomonadaceae	<i>Hyphomonas neptunium</i> ATCC 15444	0	3	0	0	0	1	0	1	0
443	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Hyphomonadaceae	<i>Maricaulis maris</i> MCS10	0	2	0	0	0	1	0	1	0
444	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Rhodobacteraceae	<i>Dinoroseobacter shibae</i> DFL 12 = DSM 16493	0	2	0	0	0	1	0	1	0
445	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Rhodobacteraceae	<i>Jannaschia</i> sp. CCS1	0	2	0	0	0	1	0	1	0
446	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Rhodobacteraceae	<i>Ketogulonicigenium vulgare</i> Y25	0	0	0	0	0	0	0	0	0
447	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Rhodobacteraceae	<i>Leisingera methylohalidorans</i> DSM 14336	0	2	0	0	0	1	0	1	0
448	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Rhodobacteraceae	<i>Octadecabacter arcticus</i> 238	0	2	0	0	0	1	0	1	0
449	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Rhodobacteraceae	<i>Paracoccus denitrificans</i> PD1222	0	2	0	0	0	1	0	1	0
450	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Rhodobacteraceae	<i>Phaeobacter gallaeciensis</i> DSM 26640	0	2	0	0	0	1	0	1	0
451	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Rhodobacteraceae	<i>Pseudovibrio</i> sp. FO-BEG1	0	3	0	0	0	1	0	1	0
452	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Rhodobacteraceae	<i>Rhodobacter sphaeroides</i> KD131	0	2	0	0	0	1	0	1	0
453	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Rhodobacteraceae	<i>Roseobacter litoralis</i> Och 149	0	2	0	0	0	1	0	1	0
454	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodobacterales	Rhodobacteraceae	<i>Ruegeria pomeroyi</i> DSS-3	0	4	0	0	0	1	0	1	0
455	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Acetobacteraceae	<i>Acetobacter pasteurianus</i> IFO 3283-01	0	0	0	0	0	0	0	0	0
456	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Acetobacteraceae	<i>Acidiphilium multivorum</i> A1U301	0	1	0	0	0	1	0	1	0
457	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Acetobacteraceae	<i>Glucosacetobacter diazotrophicus</i> PA1 5	0	0	0	0	0	0	0	0	0
458	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Acetobacteraceae	<i>Glucosacetobacter oxydans</i> H24	0	0	0	0	0	0	0	0	0
459	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Acetobacteraceae	<i>Granulibacter betshederensis</i> CGDNIH1	0	0	0	0	0	0	0	0	0
460	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Rhodospirillaceae	<i>Azospirillum brasilense</i> Sp245	0	2	0	0	0	1	0	1	0
461	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Rhodospirillaceae	<i>Candidatus Endolissoclinum faulkneri</i> L2	0	0	0	0	0	0	0	0	0
462	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Rhodospirillaceae	<i>Magnetospirillum magneticum</i> AMB-1	0	2	0	0	0	1	0	1	0
463	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Rhodospirillaceae	<i>Rhodospirillum centenum</i> SW	0	4	0	0	0	1	0	1	0
464	Bacteria	Proteobacteria	Alphaproteobacteria	Rhodospirillales	Rhodospirillaceae	<i>Tistrella mobilis</i> KA081020-065	0	5	0	0	0	1	0	1	0
465	Bacteria	Proteobacteria	Alphaproteobacteria	Rickettsiales	Anaplasmataceae	<i>Anaplasma phagocytophilum</i> str. HZ	0	1	0	0	0	1	0	1	0
466	Bacteria	Proteobacteria	Alphaproteobacteria	Rickettsiales	Anaplasmataceae	<i>Ehrlichia chaffeensis</i> str. Arkansas	0	1	0	0	0	1	0	1	0
467	Bacteria	Proteobacteria	Alphaproteobacteria	Rickettsiales	Anaplasmataceae	<i>Neorickettsia sennetsu</i> str. Miyayama	0	1	0	0	0	1	0	1	0
468	Bacteria	Proteobacteria	Alphaproteobacteria	Rickettsiales	Anaplasmataceae	<i>Wolbachia endosymbiont of Culex quinquefasciatus</i> Pel	0	1	0	0	0	1	0	1	0
469	Bacteria	Proteobacteria	Alphaproteobacteria	Rickettsiales	Anaplasmataceae	<i>Wolbachia</i> sp. wRi	0	1	0	0	0	1	0	1	0
470	Bacteria	Proteobacteria	Alphaproteobacteria	Rickettsiales	Candidatus Midichloriaceae	<i>Candidatus Midichloria mitochondrii</i> IricVA	0	1	0	0	0	1	0	1	0
471	Bacteria	Proteobacteria	Alphaproteobacteria	Rickettsiales	Rickettsiaceae	<i>Orientia tsutsugamushi</i> str. Ikeda	0	1	0	0	0	1	0	1	0
472	Bacteria	Proteobacteria	Alphaproteobacteria	Rickettsiales	Rickettsiaceae	<i>Rickettsia conorii</i> str. Malish 7	0	1	0	0	0	1	0	1	0
473	Bacteria	Proteobacteria	Alphaproteobacteria	Rickettsiales	Rickettsiaceae	<i>Rickettsia prowazekii</i> str. Madrid E	0	1	0	0	0	1	0	1	0
474	Bacteria	Proteobacteria	Alphaproteobacteria	SAR11 cluster	Candidatus Pelagibacter	<i>Candidatus Pelagibacter</i> sp. IMCC9063	0	0	0	0	0	0	0	0	0
475	Bacteria	Proteobacteria	Alphaproteobacteria	SAR116 cluster	Candidatus Puniceispirillum	<i>Candidatus Puniceispirillum marinum</i> IMCC1322	0	0	0	0	0	0	0	0	0
476	Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Erythrobacteraceae	<i>Erythrobacter litoralis</i> HTCC2594	0	3	0	0	0	1	0	1	0
477	Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Sphingomonadaceae	<i>Novosphingobium</i> sp. PP1Y	0	2	0	0	0	1	0	1	0
478	Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Sphingomonadaceae	<i>Sphingobium japonicum</i> UT26S	0	2	0	0	0	1	0	1	0
479	Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Sphingomonadaceae	<i>Sphingomonas wittichii</i> RW1	0	3	0	0	0	1	0	1	0
480	Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Sphingomonadaceae	<i>Sphingopyxis alaskensis</i> RB2256	0	2	0	0	0	1	0	1	0
481	Bacteria	Proteobacteria	Alphaproteobacteria	Sphingomonadales	Sphingomonadaceae	<i>Zymomonas mobilis</i> subsp. <i>mobilis</i> NCIMB 11163	0	0	0	0	0	0	0	0	0
482	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Alcaligenaceae	<i>Achromobacter xylosoxidans</i> A8	0	5	0	0	0	1	0	1	0
483	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Alcaligenaceae	<i>Advenella kashmirensis</i> WT001	0	4	0	0	0	1	0	1	0
484	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Alcaligenaceae	<i>Bordetella petrii</i> DSM 12804	0	2	0	0	0	1	0	1	0
485	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Alcaligenaceae	<i>Pusillimonas</i> sp. T7-7	0	4	0	0	0	1	0	1	0
486	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Alcaligenaceae	<i>Taylorella equigenitalis</i> MCE9	0	0	0	0	0	0	0	0	0
487	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Burkholderiaceae	<i>Burkholderia xenovorans</i> LB400	0	3	0	0	0	1	0	1	0

488	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Burkholderiaceae	Cupriavidus necator N-1	0	8	0	0	1	0	1	0
489	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Burkholderiaceae	Pandoraea pnomenusa 3kgm	0	2	0	0	1	0	1	0
490	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Burkholderiaceae	Polynuclеobacter necessarius subsp. asymbioticus QLW-P1DMWA-1	0	1	0	0	1	0	1	0
491	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Burkholderiaceae	Ralstonia solanacearum GM11000	0	1	0	0	1	0	1	0
492	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Acidovorax avenae subsp. avenae ATCC 19860	0	4	0	0	1	0	1	0
493	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Albiflexax ferrireducens T118	0	4	0	0	1	0	1	0
494	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Alicyclophilus denitrificans K601	0	7	0	0	1	0	1	0
495	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Candidatus Symbiobacter mobilis CR	0	0	0	0	0	0	0	0
496	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Comamonas testosteroni CNB-2	0	3	0	0	1	0	1	0
497	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Delftia acidovorans SPH-1	0	4	0	0	1	0	1	0
498	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Polaromonas sp. JS666	0	4	0	0	1	0	1	0
499	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Ramlibacter tataouinensis TTB310	0	2	0	0	1	0	1	0
500	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Variovorax paradoxus B4	0	3	0	0	1	0	1	0
501	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Comamonadaceae	Verminephrobacter eiseniae EF01-2	0	7	0	0	1	0	1	0
502	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Leptothrix	Leptothrix cholodnii SP-6	0	3	0	0	1	0	1	0
503	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Methylobium	Methylobium petroleiphilum PM1	0	4	0	0	1	0	1	0
504	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Oxalobacteraceae	Candidatus Zindieria insecticola CARI	0	0	0	0	0	0	0	0
505	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Oxalobacteraceae	Collimonas fungivorans Ter331	0	2	0	0	1	0	1	0
506	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Oxalobacteraceae	Herbaspirillum seropedicae SmR1	0	2	0	0	1	0	1	0
507	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Oxalobacteraceae	Hermiinimonas arsenicoxydans	0	1	0	0	1	0	1	0
508	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Oxalobacteraceae	Janthinobacterium sp. Marseille	0	2	0	0	1	0	1	0
509	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Rubrivivax	Rubrivivax gelatinosus LI144	0	4	1	0	1	1	0	0
510	Bacteria	Proteobacteria	Betaproteobacteria	Burkholderiales	Thiomonas	Thiomonas arsenitoxydans	0	1	0	0	1	0	1	0
511	Bacteria	Proteobacteria	Betaproteobacteria	Candidatus Accumulibacter	unknown	Candidatus Accumulibacter phosphatis clade IIA str. UW-1	0	3	1	0	1	1	0	0
512	Bacteria	Proteobacteria	Betaproteobacteria	Candidatus Nasuia	unknown	Candidatus Nasuia deltocephalinicola str. NAS-ALF	0	0	0	0	0	0	0	0
513	Bacteria	Proteobacteria	Betaproteobacteria	Candidatus Proffittella	unknown	Candidatus Proffittella armatura	0	0	0	0	0	0	0	0
514	Bacteria	Proteobacteria	Betaproteobacteria	Candidatus Tremblaya	unknown	Candidatus Tremblaya phenacola PAVE	0	0	0	0	0	0	0	0
515	Bacteria	Proteobacteria	Betaproteobacteria	Gallionellales	Gallionellaceae	Gallionella capsiferriiformans ES-2	0	0	0	0	0	0	0	0
516	Bacteria	Proteobacteria	Betaproteobacteria	Gallionellales	Gallionellaceae	Sideroxydans lithotrophicus ES-1	0	0	0	0	0	0	0	0
517	Bacteria	Proteobacteria	Betaproteobacteria	Hydrogenophilales	Hydrogenophilaceae	Sulfuricella denitrificans skB26	1	0	0	0	1	0	0	1
518	Bacteria	Proteobacteria	Betaproteobacteria	Hydrogenophilales	Hydrogenophilaceae	Thiobacillus denitrificans ATCC 25259	1	0	0	0	1	0	0	1
519	Bacteria	Proteobacteria	Betaproteobacteria	Kinetoplastibacterium	unknown	Candidatus Kinetoplastibacterium desouzaii TCC079E	0	0	0	0	0	0	0	0
520	Bacteria	Proteobacteria	Betaproteobacteria	Methylophilales	Methylophilaceae	Methylobacillus flagellatus KT	1	0	0	0	1	0	0	1
521	Bacteria	Proteobacteria	Betaproteobacteria	Methylophilales	Methylophilaceae	Methylotenera versatilis 301	1	0	0	0	1	0	0	1
522	Bacteria	Proteobacteria	Betaproteobacteria	Methylophilales	Methylophilaceae	Methylororus glucosetrophus SIP3-4	1	0	0	0	1	0	0	1
523	Bacteria	Proteobacteria	Betaproteobacteria	Neisseriales	Chromobacteriaceae	Chromobacterium violaceum ATCC 12472	0	3	0	0	0	1	0	1
524	Bacteria	Proteobacteria	Betaproteobacteria	Neisseriales	Chromobacteriaceae	Laribacter hongkongensis HLHK9	0	1	0	0	0	1	0	1
525	Bacteria	Proteobacteria	Betaproteobacteria	Neisseriales	Chromobacteriaceae	Pseudogulbenkiania sp. NH8B	0	2	0	0	0	1	0	1
526	Bacteria	Proteobacteria	Betaproteobacteria	Neisseriales	Neisseriaceae	Neisseria meningitidis MC58	0	0	0	0	0	0	0	0
527	Bacteria	Proteobacteria	Betaproteobacteria	Nitrosomonadales	Nitrosomonadaceae	Nitrosomonas sp. Is79A3	1	0	0	0	1	0	0	1
528	Bacteria	Proteobacteria	Betaproteobacteria	Nitrosomonadales	Nitrosomonadaceae	Nitrosospora multiformis ATCC 25196	0	0	0	0	0	0	0	0
529	Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Aromatoleum aromaticum EbN1	2	2	0	0	1	1	0	1
530	Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Azarcus sp. KH32C	0	4	0	0	0	1	0	1
531	Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Rhodochromonas aromatica RCB	0	3	0	0	0	1	0	1
532	Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Dechlorosoma suillum PS	0	2	0	0	0	1	0	1
533	Bacteria	Proteobacteria	Betaproteobacteria	Rhodocyclales	Rhodocyclaceae	Thauera sp. MZ1T	0	2	0	0	0	1	0	1
534	Bacteria	Proteobacteria	Deltaproteobacteria	Bdellovibrionales	Bacteriovoraceae	Bacteriovorax marinus SJ	0	2	0	0	0	1	0	1
535	Bacteria	Proteobacteria	Deltaproteobacteria	Bdellovibrionales	Bdellovibrionaceae	Bdellovibrio bacteriovorus HD100	0	2	0	0	0	1	0	1
536	Bacteria	Proteobacteria	Deltaproteobacteria	Desulfarcuiales	Desulfarcuaceae	Desulfarculus baarsii DSM 2075	1	4	1	0	1	1	1	0
537	Bacteria	Proteobacteria	Deltaproteobacteria	Desulfobacteriales	Desulfobacteraceae	Desulfatibacillum alkenivorans AK-01	2	8	1	0	1	1	1	0
538	Bacteria	Proteobacteria	Deltaproteobacteria	Desulfobacteriales	Desulfobacteraceae	Desulfobacterium autotrophicum HRM2	1	4	3	0	1	1	1	0
539	Bacteria	Proteobacteria	Deltaproteobacteria	Desulfobacteriales	Desulfobacteraceae	Desulfobacula toluolica Tol2	1	2	1	0	1	1	1	0
540	Bacteria	Proteobacteria	Deltaproteobacteria	Desulfobacteriales	Desulfobacteraceae	Desulfococcus oleovorans Hxd3	1	3	1	0	1	1	1	0
541	Bacteria	Proteobacteria	Deltaproteobacteria	Desulfobacteriales	Desulfobulbaceae	Desulfobulbus propionicus DSM 2032	1	2	1	0	1	1	1	0
542	Bacteria	Proteobacteria	Deltaproteobacteria	Desulfobacteriales	Desulfobulbaceae	Desulfocapsa sulfexigens DSM 10523	1	1	1	0	1	1	1	0

598	Bacteria	Proteobacteria	Gammaproteobacteria	Chromatiales	Ectothiorhodospiraceae	Thioalkalivibrio nitratireducens DSM 14787	1	0	0	1	0	0	1	0	
599	Bacteria	Proteobacteria	Gammaproteobacteria	Chromatiales	Halothiobacillaceae	Halothiobacillus neapolitanus c2	0	0	0	0	0	0	0	0	0
600	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Buchnera aphidicola str. APS	0	0	0	0	0	0	0	0	0
601	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Candidatus Blochmannia pennsylvanicus str. BPEN	0	0	0	0	0	0	0	0	0
602	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Candidatus Hamiltonella defensa SAT	0	0	0	0	0	0	0	0	0
603	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Candidatus Moranella endobia PCVAL	0	0	0	0	0	0	0	0	0
604	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Candidatus Riesia pediculicola USDA	0	0	0	0	0	0	0	0	0
605	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Citrobacter koseri ATCC BAA-895	0	1	0	0	1	0	1	0	0
606	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Cronobacter turicensis z3032	0	1	0	0	0	1	0	1	0
607	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Dickeya dadantii 3937	0	1	0	0	0	1	0	1	0
608	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Edwardsiella ictaluri 93-146	0	0	0	0	0	0	0	0	0
609	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Enterobacter cloacae subsp. cloacae ATCC 13047	0	1	0	0	0	1	0	1	0
610	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Erwinia amylovora ATCC 49946	0	0	0	0	0	0	0	0	0
611	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Escherichia coli O157:H7 str. Sakai	0	0	0	0	0	0	0	0	0
612	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Escherichia coli str. K-12 substr. MG1655	0	0	0	0	0	0	0	0	0
613	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Klebsiella pneumoniae 342	2	1	2	1	1	1	0	0	0
614	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Morganella morganii subsp. morganii KT	0	0	0	0	0	0	0	0	0
615	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Pantoea sp. At-9b	0	1	0	0	1	0	1	0	0
616	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Pectobacterium sp. SCC3193	0	0	0	0	0	0	0	0	0
617	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Photorhabdus luminescens subsp. laumondii TTO1	0	0	0	0	0	0	0	0	0
618	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Proteus mirabilis HI4320	0	0	0	0	0	0	0	0	0
619	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Providencia stuartii MRSN 2154	0	0	0	0	0	0	0	0	0
620	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Rahnella sp. Y9602	0	1	0	0	0	1	0	1	0
621	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Raoultella ornithinolytica B6	0	1	0	0	0	1	0	1	0
622	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Salmonella enterica subsp. enterica serovar Typhimurium str. LT2	2	0	3	1	0	1	0	0	0
623	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	secondary endosymbiont of Ctenarytaina eucalypti	0	0	0	0	0	0	0	0	0
624	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	secondary endosymbiont of Heteropsylla cubana	0	0	0	0	0	0	0	0	0
625	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Serratia plymuthica S13	0	0	0	0	0	0	0	0	0
626	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Shigella dysenteriae 1617	0	0	0	0	0	0	0	0	0
627	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Sodalis glossinidius str. 'morsitans'	0	0	0	0	0	0	0	0	0
628	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Wigglesworthia glossinidia endosymbiont of Glossina morsitans morsitans	0	0	0	0	0	0	0	0	0
629	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Xenorhabdus nematophila ATCC 19061	0	0	0	0	0	0	0	0	0
630	Bacteria	Proteobacteria	Gammaproteobacteria	Enterobacteriales	Enterobacteriaceae	Yersinia pestis CO92	0	0	0	0	0	0	0	0	0
631	Bacteria	Proteobacteria	Gammaproteobacteria	Legionellales	Coxiellaceae	Coxiella burnetii Dugway 5J108-111	0	1	0	0	0	1	0	1	0
632	Bacteria	Proteobacteria	Gammaproteobacteria	Legionellales	Legionellaceae	Legionella pneumophila subsp. pneumophila LPE509	1	2	0	0	1	1	0	1	0
633	Bacteria	Proteobacteria	Gammaproteobacteria	Methylococcales	Methylococcaceae	Methylococcus capsulatus str. Bath	1	0	1	1	0	1	0	0	0
634	Bacteria	Proteobacteria	Gammaproteobacteria	Methylococcales	Methylococcaceae	Methylobacterium alcaliphilum 20Z	2	0	1	1	0	1	0	0	0
635	Bacteria	Proteobacteria	Gammaproteobacteria	Methylococcales	Methylococcaceae	Methylomonas methanica MC09	1	0	1	1	0	1	0	0	0
636	Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Alcanivoracaceae	Alcanivorax borkumensis SK2	1	2	1	1	1	1	0	0	0
637	Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Alcanivoracaceae	Kangiella koreensis DSM 16069	1	1	1	1	1	1	0	0	0
638	Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Hahellaceae	Hahella chejuensis KCTC 2396	2	2	1	1	1	1	0	0	0
639	Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Halomonadaceae	Candidatus Carsonella ruddii DC	0	0	0	0	0	0	0	0	0
640	Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Halomonadaceae	Candidatus Portiera aleyrodidarum BT-QVLC	0	0	0	0	0	0	0	0	0
641	Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Halomonadaceae	Chromohalobacter salaxigens DSM 3043	2	0	1	1	0	1	0	0	0
642	Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Halomonadaceae	Halomonas elongata DSM 2581	1	1	1	1	1	1	0	0	0
643	Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Marinomonas	Marinomonas sp. MWYL1	2	0	1	1	0	1	0	0	0
644	Bacteria	Proteobacteria	Gammaproteobacteria	Oceanospirillales	Thalassolituus	Thalassolituus oleivorans MIL-1	2	0	1	1	0	1	0	0	0
645	Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Actinobacillus suis H91-0380	1	0	1	1	0	1	0	0	0
646	Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Aggregatibacter actinomycetemcomitans D7S-1	1	0	1	1	0	1	0	0	0
647	Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Bibersteinia trehalosi USDA-ARS-USMARC-192	1	0	1	1	0	1	0	0	0
648	Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Gallibacterium anatis UMN179	1	0	1	1	0	1	0	0	0
649	Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Haemophilus influenzae Rd KW20	0	0	0	0	0	0	0	0	0
650	Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Mannheimia haemolytica M42548	1	0	1	1	0	1	0	0	0
651	Bacteria	Proteobacteria	Gammaproteobacteria	Pasteurellales	Pasteurellaceae	Pasteurella multocida subsp. multocida str. Pm70	1	0	1	1	0	1	0	0	0
652	Bacteria	Proteobacteria	Gammaproteobacteria	Pseudomonadales	Moraxellaceae	Acinetobacter baumannii ATCC 17978	0	3	0	0	0	1	0	1	0

708	Bacteria	Verrucomicrobia	Opitutae	Opitutales	Opitutaceae	Opitutus terrae PB90-1
709	Bacteria	Verrucomicrobia	Opitutae	Puniceicoccales	Puniceicoccaceae	Coraliomargarita akajimensis DSM 45221
710	Bacteria	Verrucomicrobia	unclassified Verrucomicrobia	Methylacidiphilales	Methylacidiphilaceae	Methylacidiphilum inferorum V4
711	Bacteria	Verrucomicrobia	Verrucomicrobiae	Verrucomicrobiales	Verrucomicrobiaceae	Akkermansia muciniphila ATCC BAA-835

	1	1	2	1	1	1	0	0
	1	1	1	1	1	1	0	0
	0	0	0	0	0	0	0	0
	1	1	1	1	1	1	0	0
TOTAL:	255	876	180	216	413	141	382	0