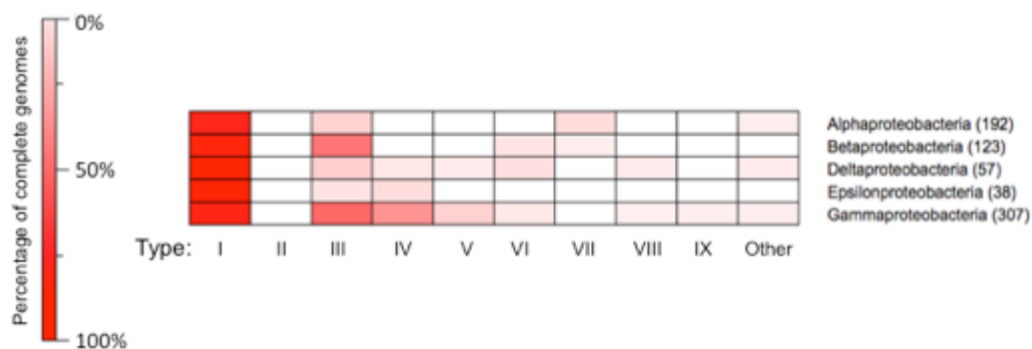


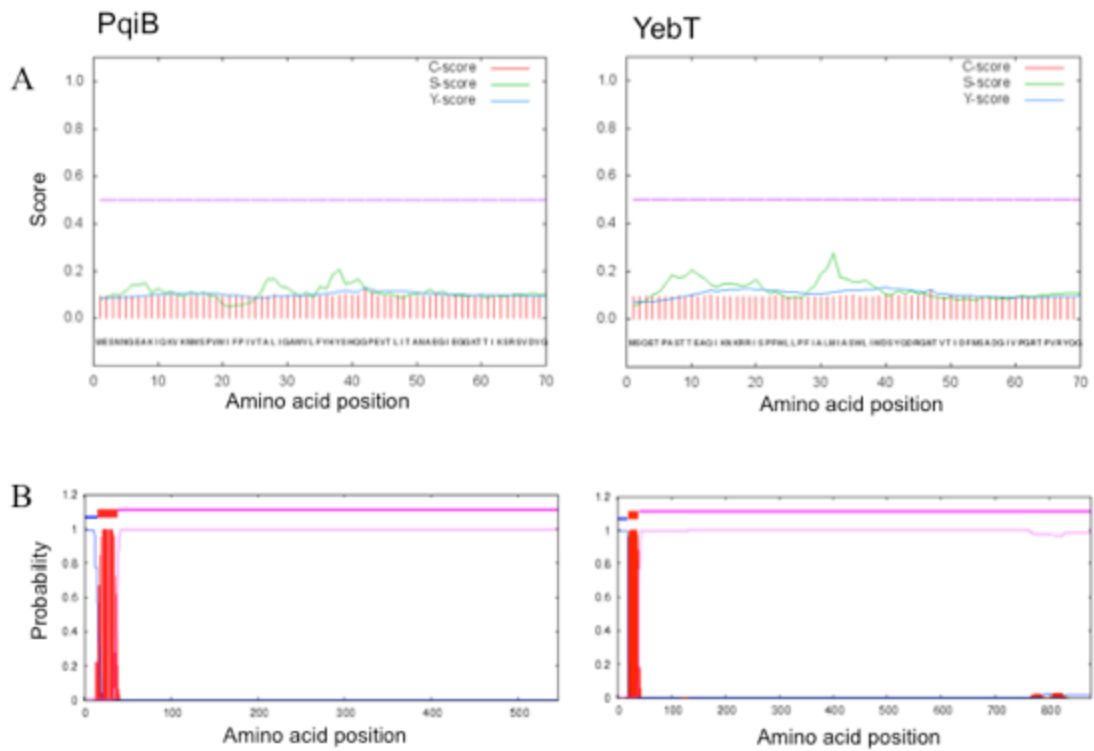
MCE domain proteins: conserved inner membrane lipid-binding proteins required for outer membrane homeostasis

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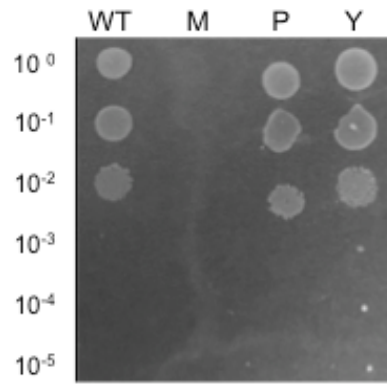
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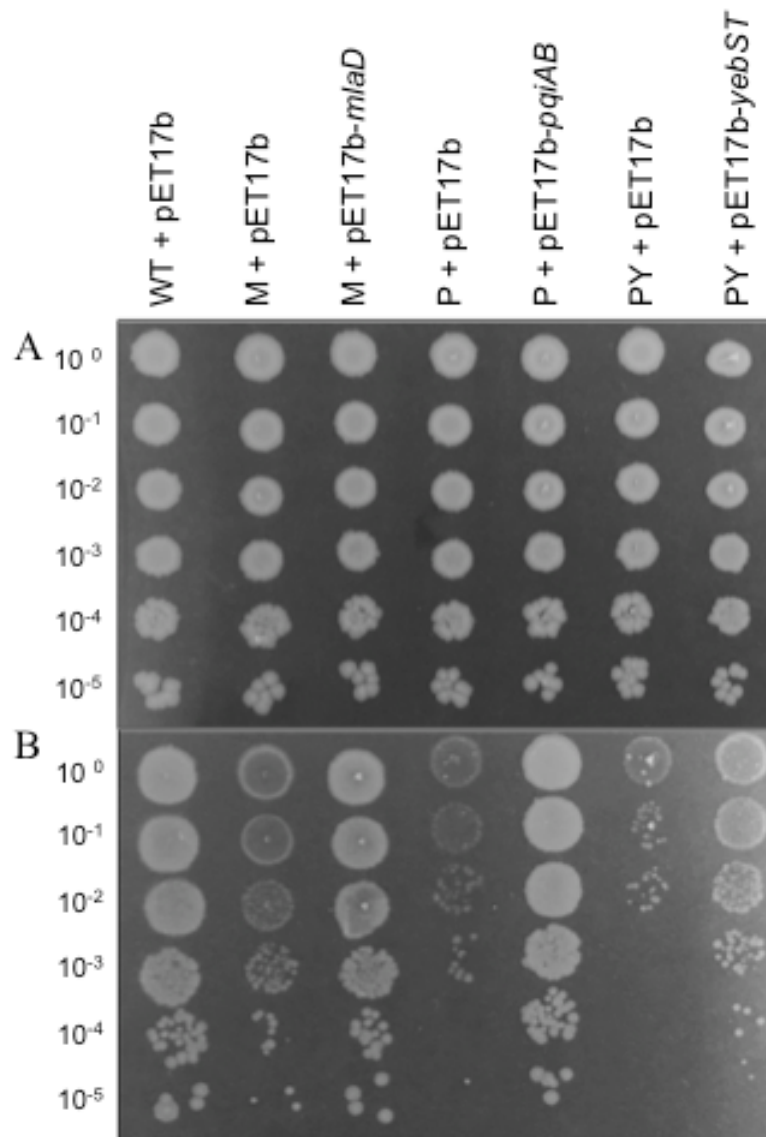
Supplementary figure S1. A heat map showing the distribution of MCE protein architectures across the major classes of Proteobacteria. For architecture information see supplementary table 1. The colours are based on percentages ranging from 0% (white) to 100% (bright red). The classes are displayed on the right of the heat map and the number of species is in brackets.



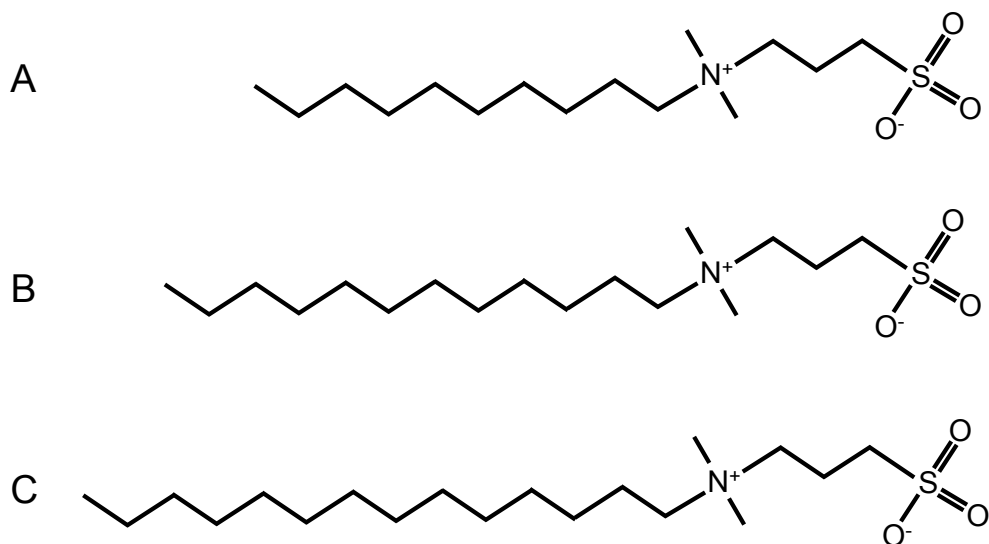
Supplementary figure S3. A) Cleavable signal peptide predictions of PqiB and YebT using SignalP 4.1 server and B) the transmembrane helix predictions of PqiB and YebT using the TMHMM server.



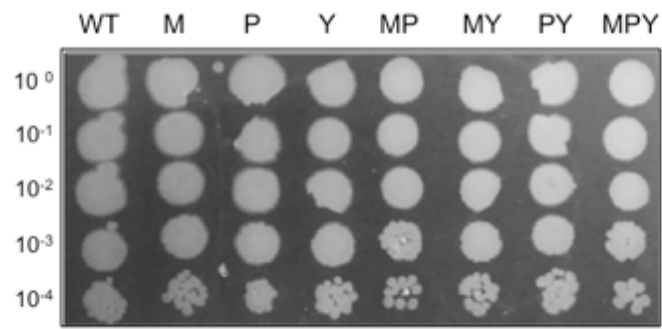
Supplementary figure S4. Dilutions of the WT strain and $\Delta mlaD$, $\Delta pqiAB$ and $\Delta yebST$ deletion strains on LB agar supplemented with 0.5% SDS and 1.1 mM EDTA. The plates were prepared as described previously.



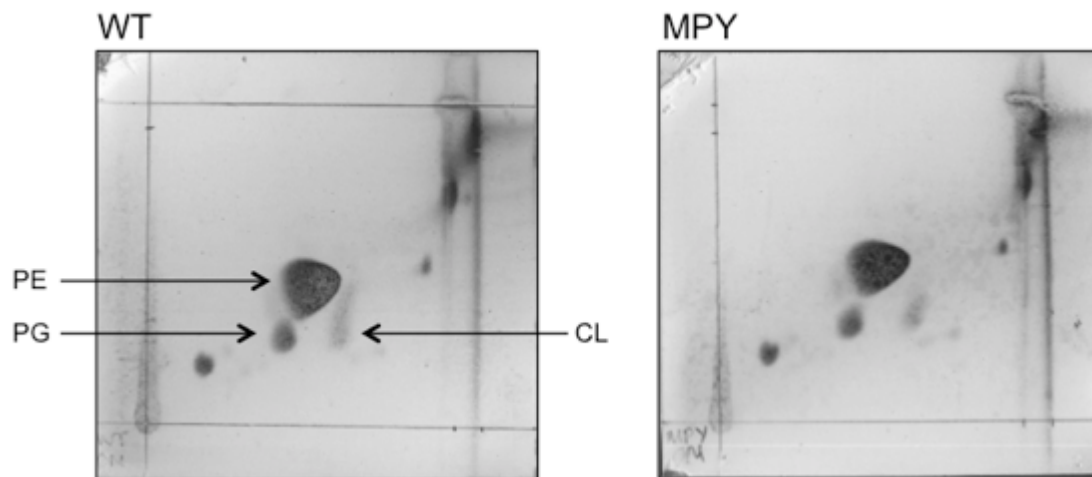
Supplementary figure S5. Complementation of the phenotypes of *mIaD*, *pqiAB* and *pqiAB yebST* mutants on 1% lauryl sulfobetaine: (A) LB agar, (B) 1% lauryl sulfobetaine. The plates were prepared as described previously.



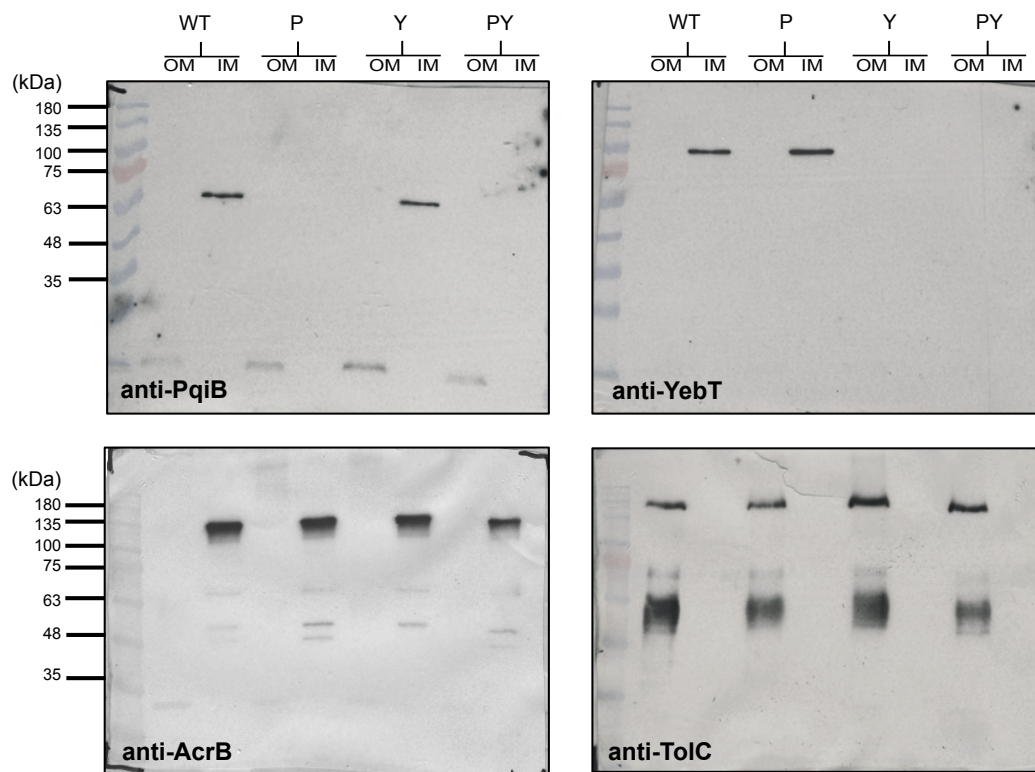
Supplementary figure S6. Chemical structures of A) caprylyl sulfobetaine B) lauryl sulfobetaine and C) myristyl sulfobetaine.



Supplementary figure S7. Dilutions of the WT strain and all mutants on LB agar supplemented with 1% SDS. The plates were prepared as described previously.



Supplementary figure S8. Outer membrane lipid profiles of the parent strain and the *mld* *pqiAB* *yebST* mutant. Lipids were extracted from outer membranes and separated by TLC in 65:25:4 chloroform:methanol:water (direction 1) and 80:12:15:4 chloroform:methanol: acetic acid:water (direction 2).



Supplementary figure S9. Full western blots to identify the locations of PqiB and YebT in *E. coli* K-12 BW25113.

Supplementary table S1: Architectures for MCE proteins

Architecture no.	No. proteins	Description
1	11012	MCE
2	2718	MCE, DUF3407
3	2026	MCE, MCE, MCE
4	1042	MCE, MCE, MCE, MCE, MCE, MCE, MCE
5	236	MCE, MCE, MCE, MCE, MCE, MCE
6	125	MCE, MCE
7	35	MCE, DUF330
8	20	MCE, MCE, MCE, MCE
9	15	MCE, MCE, MCE, MCE, MCE
10	8	MCE, MCE, DUF3407
11	7	MCE, MCE, MCE, MCE, MCE, MCE, MCE, MCE
12	4	MCE, DUF3407, MCE
13	4	MCE, MCE, MCE, DUF330
14	2	MCE, AP2
15	2	PqiA, PqiA, MCE, MCE, MCE, DUF330
16	2	PqiA, MCE, MCE
17	2	MCE, PLU-1
18	2	MCE, OmpA
19	1	MCE, MCE, MCE, MCE, Molybdopterin
20	1	PqiA, PqiA, MCE, MCE, MCE, MCE, MCE, MCE, MCE, MCE, Nol1_Nop2_Fmu, Methyltransf_31, Methyltransf_18, Methyltransf_26, Nol1_Nop2_Fmu, Nol1_Nop2_Fmu_2
21	1	MCE, MCE, MCE, MCE, MCE, MCE, MCE, MCE, MCE, MCE, MCE, MCE, MCE
22	1	MCE, DUF4455
23	1	OTCace_N, OTCace, MCE
24	1	DUF3407, MCE
25	1	MCE, Inositol_P

26 1 Permease, MCE, Tol_Tol_Ttg2, STAS_2, BolA
27 1 MCE, Bacillus_HBL
28 1 MCE, RTX
29 1 MCE, Serine_rich
30 1 MCE, MCE, MCE, MCE, PqiA, MCE, MCE, MCE
31 1 MCE, DUF3407, MCE, DUF3407
32 1 MCE, DUF3407, DUF3407
33 1 PqiA, MCE, MCE, MCE, MCE, MCE, Nol1_Nop2_Fmu, Nol1_Nop2_Fmu_2
34 1 MCE, LXG
35 1 MCE, GCN5L1
36 1 ABC_tran, MCE
37 1 NDUFA12, MCE, DUF2155
38 1 MreC, MCE, MCE

Supplementary table S2: IDs for proteins used in cluster analysis

Uniprot ID	Arch	Phylum	Class	Species
tr W7QLA0 W7QLA0_9ALTE	3	Proteobacteria	Gammaproteobacteria	Catenovulum agarivorans
tr Q1JX22 Q1JX22_DESAC	3	Proteobacteria	Deltaproteobacteria	Desulfuromonas acetoxidans
tr Q2BQQ8 Q2BQQ8_NEPCE	3	Proteobacteria	Gammaproteobacteria	Neptuniibacter caesariensis
tr B5JP82 B5JP82_9BACT	3	Verrucomicrobia	Verrucomicrobiae	Verrucomicrobiae bacterium DG1235
tr C4L8N7 C4L8N7_TOLAT	3	Proteobacteria	Gammaproteobacteria	Tolumonas auensis
tr Q0HUV4 Q0HUV4_SHESR	3	Proteobacteria	Gammaproteobacteria	Shewanella sp. MR-7
tr R1GTU0 R1GTU0_9GAMM	3	Proteobacteria	Gammaproteobacteria	Grimontia indica
tr G2J562 G2J562_PSEUL	3	Proteobacteria	Betaproteobacteria	Pseudogulbenkiania sp. NH8B
tr K1IQ67 K1IQ67_9GAMM	3	Proteobacteria	Gammaproteobacteria	Aeromonas veronii
tr A0A085APC5 A0A085APC5_9GAMM	3	Proteobacteria	Gammaproteobacteria	Halomonas sp. KO116
tr A0A090PG68 A0A090PG68_9VIBR	3	Proteobacteria	Gammaproteobacteria	Vibrio ponticus
tr I9P2X1 I9P2X1_9ALTE	3	Proteobacteria	Gammaproteobacteria	Alishewanella agri
tr D4ZEJ0 D4ZEJ0_SHEVD	3	Proteobacteria	Gammaproteobacteria	Shewanella violacea
tr A3Y6F5 A3Y6F5_9GAMM	3	Proteobacteria	Gammaproteobacteria	Marinomonas sp. MED121
tr W1RZL0 W1RZL0_9GAMM	3	Proteobacteria	Gammaproteobacteria	Marinomonas profundimaris
tr A0A084IRA0 A0A084IRA0_9GAMM	3	Proteobacteria	Gammaproteobacteria	Salinisphaera hydrothermalis
tr F7NS36 F7NS36_9GAMM	3	Proteobacteria	Gammaproteobacteria	Rheinheimera sp. A13L
tr D8KBC3 D8KBC3_NITWC	3	Proteobacteria	Gammaproteobacteria	Nitrosococcus watsonii
tr K2K842 K2K842_9GAMM	3	Proteobacteria	Gammaproteobacteria	Idiomarina xiamenensis
tr B4WYV8 B4WYV8_9GAMM	3	Proteobacteria	Gammaproteobacteria	Alcanivorax sp. DG881
tr Q47ZJ5 Q47ZJ5_COLP3	3	Proteobacteria	Gammaproteobacteria	Colwellia psychrerythraea
tr K6XBP4 K6XBP4_9ALTE	3	Proteobacteria	Gammaproteobacteria	Glaciecola arctica
tr A0A0A0DWT9 A0A0A0DWT9_9SPIO	3	Spirochaetes	Spirochaetia	Spirochaeta sp. JC202
tr H5TE19 H5TE19_9ALTE	3	Proteobacteria	Gammaproteobacteria	Glaciecola punicea

tr A0LD19 A0LD19_MAGSM	3	Proteobacteria	Alphaproteobacteria	Magnetococcus marinus
tr A3UYZ0 A3UYZ0_VIBSP	3	Proteobacteria	Gammaproteobacteria	Vibrio splendidus
tr A0A066TDG6 A0A066TDG6_9GAMM	3	Proteobacteria	Gammaproteobacteria	Gilliamella apicola
tr Q5QYR9 Q5QYR9_IDILO	3	Proteobacteria	Gammaproteobacteria	Idiomarina loihiensis
tr A4C4S4 A4C4S4_9GAMM	3	Proteobacteria	Gammaproteobacteria	Pseudoalteromonas tunicata
tr A0A0A0DA86 A0A0A0DA86_9PROT	3	Proteobacteria	Alphaproteobacteria	Inquilinus limosus
tr I3Y552 I3Y552_THIV6	3	Proteobacteria	Gammaproteobacteria	Thiocystis violascens
tr Q21EW5 Q21EW5_SACD2	3	Proteobacteria	Gammaproteobacteria	Saccharophagus degradans
tr G8APC9 G8APC9_AZOBR	3	Proteobacteria	Alphaproteobacteria	Azospirillum brasilense
tr F1VUW1 F1VUW1_9BURK	3	Proteobacteria	Betaproteobacteria	Oxalobacteraceae bacterium IMCC9480
tr K0EE59 K0EE59_ALTMB	3	Proteobacteria	Gammaproteobacteria	Alteromonas macleodii
tr A0A077ZKM6 A0A077ZKM6_TRITR	15	Nematoda	Enoplea	Trichuris trichiura
tr A0A074W1C1 A0A074W1C1_9NEIS	3	Proteobacteria	Betaproteobacteria	Snodgrassella alvi
tr V9HKU2 V9HKU2_9NEIS	3	Proteobacteria	Betaproteobacteria	Simonsiella muelleri
tr Q0EYY4 Q0EYY4_9PROT	3	Proteobacteria	Zetaproteobacteria	Mariprofundus ferrooxydans
tr G8QKZ3 G8QKZ3_AZOSU	3	Proteobacteria	Betaproteobacteria	Azospira oryzae
tr I3BPC0 I3BPC0_9GAMM	3	Proteobacteria	Gammaproteobacteria	Thiothrix nivea
tr C8NBJ5 C8NBJ5_9GAMM	3	Proteobacteria	Gammaproteobacteria	Cardiobacterium hominis
tr F5RGX9 F5RGX9_METUF	3	Proteobacteria	Betaproteobacteria	Methyloversatilis universalis
tr A0A0C1EHH8 A0A0C1EHH8_9NEIS	3	Proteobacteria	Betaproteobacteria	Chromobacterium piscinae
tr U1KL45 U1KL45_9GAMM	3	Proteobacteria	Gammaproteobacteria	Pseudoalteromonas rubra
tr H8YXD3 H8YXD3_9GAMM	3	Proteobacteria	Gammaproteobacteria	Thiorhodovibrio sp. 970
tr Q60BV2 Q60BV2_METCA	3	Proteobacteria	Gammaproteobacteria	Methylococcus capsulatus
tr A0A0C2BZI7 A0A0C2BZI7_9BURK	3	Proteobacteria	Betaproteobacteria	Burkholderia sp. MR1
tr V5C6C1 V5C6C1_9GAMM	3	Proteobacteria	Gammaproteobacteria	Methyloglobulus morosus
tr W0TPY7 W0TPY7_9GAMM	3	Proteobacteria	Gammaproteobacteria	Thiolapillus brandeum
tr K6ZJ07 K6ZJ07_9ALTE	3	Proteobacteria	Gammaproteobacteria	Glaciecola pallidula

tr H8FSC4 H8FSC4_PHAMO	3	Proteobacteria	Alphaproteobacteria	Phaeospirillum molischianum
tr A0A0A0XK37 A0A0A0XK37_BORPT	3	Proteobacteria	Betaproteobacteria	Bordetella pertussis
tr A0A074JU64 A0A074JU64_9PROT	3	Proteobacteria	Alphaproteobacteria	Thalassospira permensis
tr C7LVB3 C7LVB3_DESBD	3	Proteobacteria	Deltaproteobacteria	Desulfomicrobium baculatum
tr A0A085VDL2 A0A085VDL2_PSESX	3	Proteobacteria	Gammaproteobacteria	Pseudomonas syringae
tr A4END7 A4END7_9RHOB	3	Proteobacteria	Alphaproteobacteria	Roseobacter sp. CCS2
tr F6G519 F6G519_RALS8	3	Proteobacteria	Betaproteobacteria	Ralstonia solanacearum
tr A0A0A2NAS5 A0A0A2NAS5_ALCFA	3	Proteobacteria	Betaproteobacteria	Alcaligenes faecalis
tr E7RVG0 E7RVG0_9BURK	3	Proteobacteria	Betaproteobacteria	Lautropia mirabilis
tr A2SBR3 A2SBR3_METPP	3	Proteobacteria	Betaproteobacteria	Methylibium petroleiphilum
tr W4LZ37 W4LZ37_9DELT	3	Proteobacteria	Deltaproteobacteria	Candidatus Entotheonella sp. TSY1
tr D3P1L3 D3P1L3_AZOS1	3	Proteobacteria	Alphaproteobacteria	Azospirillum lipoferum
tr L0GTT0 L0GTT0_9GAMM	3	Proteobacteria	Gammaproteobacteria	Thioflaviccoccus mobilis
tr W0P9Z5 W0P9Z5_9BURK	3	Proteobacteria	Betaproteobacteria	Advenella mimigardefordensis
tr A0A011MTG9 A0A011MTG9_9PROT	3	Proteobacteria	Betaproteobacteria	Candidatus Accumulibacter sp. SK-12
tr W8X4D4 W8X4D4_CASDE	3	Proteobacteria	Betaproteobacteria	Castellaniella defragrans
tr E6X0T4 E6X0T4_NITSE	3	Proteobacteria	Epsilonproteobacteria	Nitratifactor salsuginis
tr H5WFA8 H5WFA8_RALSL	3	Proteobacteria	Betaproteobacteria	Ralstonia solanacearum
tr N9J529 N9J529_ACIBA	3	Proteobacteria	Gammaproteobacteria	Acinetobacter baumannii
tr E8WLI1 E8WLI1_GEOS8	3	Proteobacteria	Deltaproteobacteria	Geobacter sp. M18
tr I4W5L9 I4W5L9_9GAMM	3	Proteobacteria	Gammaproteobacteria	Rhodanobacter spathiphylli
tr H8Z2C9 H8Z2C9_9GAMM	3	Proteobacteria	Gammaproteobacteria	Thiorhodovibrio sp. 970
tr A5EVN5 A5EVN5_DICNV	3	Proteobacteria	Gammaproteobacteria	Dichelobacter nodosus
tr U6ZHU6 U6ZHU6_9ENTR	3	Proteobacteria	Gammaproteobacteria	Dickeya solani
tr N6VSY4 N6VSY4_9ALTE	3	Proteobacteria	Gammaproteobacteria	Marinobacter nanhaiticus
tr I7ZD67 I7ZD67_9GAMM	3	Proteobacteria	Gammaproteobacteria	Hydrocarboniphaga effusa
tr D5RJN2 D5RJN2_9PROT	3	Proteobacteria	Alphaproteobacteria	Roseomonas cervicalis

tr S9QUJ4 S9QUJ4_9RHOB	3	Proteobacteria	Alphaproteobacteria	Salipiger mucosus
tr K5YNK1 K5YNK1_9PROT	3	Proteobacteria	Alphaproteobacteria	Acidocella sp. MX-AZ02
tr W6IEP2 W6IEP2_9PROT	3	Proteobacteria	Alphaproteobacteria	Granulibacter bethesdensis
tr K2HDV7 K2HDV7_9RHOB	3	Proteobacteria	Alphaproteobacteria	Oceaniovalibus guishaninsula
tr E8LJ51 E8LJ51_9GAMM	3	Proteobacteria	Gammaproteobacteria	Succinatimonas hippei
tr A3VJY1 A3VJY1_9RHOB	3	Proteobacteria	Alphaproteobacteria	Maritimibacter alkaliphilus
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tr F1YR40 F1YR40_9PROT	3	Proteobacteria	Alphaproteobacteria	Acetobacter pomorum
tr E0XV80 E0XV80_9RHOB	3	Proteobacteria	Alphaproteobacteria	uncultured Rhodobacterales bacterium
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tr I4N3T3 I4N3T3_9PSED	3	Proteobacteria	Gammaproteobacteria	Pseudomonas sp. M47T1
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tr B5WKB9 B5WKB9_9BURK	3	Proteobacteria	Betaproteobacteria	Burkholderia sp. H160
tr W4HJ72 W4HJ72_9RHOB	3	Proteobacteria	Alphaproteobacteria	Roseivivax atlanticus
tr Q5LU11 Q5LU11_RUEPO	3	Proteobacteria	Alphaproteobacteria	Ruegeria pomeroyi
tr S9R3A0 S9R3A0_9RHOB	3	Proteobacteria	Alphaproteobacteria	Rubellimicrobium thermophilum
tr Q2CEX1 Q2CEX1_OCEGH	3	Proteobacteria	Alphaproteobacteria	Oceanicola granulosus
tr A0A0A0EJW2 A0A0A0EJW2_9RHOB	3	Proteobacteria	Alphaproteobacteria	Oceanicola sp. 22II-S11g
tr A1B5I5 A1B5I5_PARDP	3	Proteobacteria	Alphaproteobacteria	Paracoccus denitrificans
tr A6Q8Y6 A6Q8Y6_SULNB	3	Proteobacteria	Epsilonproteobacteria	Sulfurovum sp. NBC37-1
tr R5EUI6 R5EUI6_9GAMM	3	Proteobacteria	Gammaproteobacteria	Succinatimonas sp. CAG:777
tr E0MTJ0 E0MTJ0_9RHOB	3	Proteobacteria	Alphaproteobacteria	Ahrensia sp. R2A130
tr Q28S24 Q28S24_JANSC	3	Proteobacteria	Alphaproteobacteria	Jannaschia sp. CCS1
tr A0A074JYA3 A0A074JYA3_9RHOB	3	Proteobacteria	Alphaproteobacteria	Thioclava pacifica

tr I2JLN1 I2JLN1_9GAMM	5	Proteobacteria	Gammaproteobacteria	gamma proteobacterium BDW918
tr B1ZMG9 B1ZMG9_OPITP	6	Verrucomicrobia	Opitutae	Opitutus terrae
tr A3SUA2 A3SUA2_9RHOB	3	Proteobacteria	Alphaproteobacteria	Sulfitobacter sp. NAS-14.1
tr A0A086YBP6 A0A086YBP6_9RHOB	3	Proteobacteria	Alphaproteobacteria	Haematobacter massiliensis
tr A0A017HC32 A0A017HC32_9RHOB	3	Proteobacteria	Alphaproteobacteria	Loktanella hongkongensis
tr I6AE33 I6AE33_BURTH	3	Proteobacteria	Betaproteobacteria	Burkholderia thailandensis
tr A0A017HNY4 A0A017HNY4_9RHOB	13	Proteobacteria	Alphaproteobacteria	Rubellimicrobium mesophilum
tr A0A0C2VS99 A0A0C2VS99_9PROT	3	Proteobacteria	Epsilonproteobacteria	Sulfurovum sp. PC08-66
tr A0A081G1V5 A0A081G1V5_9ALTE	4	Proteobacteria	Gammaproteobacteria	Marinobacterium sp. AK27
tr R9PQD7 R9PQD7_AGAAL	4	Proteobacteria	Gammaproteobacteria	Agarivorans albus
tr Q12NH6 Q12NH6_SHEDO	4	Proteobacteria	Gammaproteobacteria	Shewanella denitrificans
tr W9VQN3 W9VQN3_9GAMM	9	Proteobacteria	Gammaproteobacteria	Nitrincola sp. AK23
tr E1SSP2 E1SSP2_FERBD	4	Proteobacteria	Gammaproteobacteria	Ferrimonas balearica
tr B5JKB5 B5JKB5_9BACT	6	Verrucomicrobia	Verrucomicrobiae	Verrucomicrobiae bacterium DG1235
tr F9ZUH5 F9ZUH5_ACICS	3	Proteobacteria	Gammaproteobacteria	Acidithiobacillus caldus
tr A0A094K1R7 A0A094K1R7_9GAMM	4	Proteobacteria	Gammaproteobacteria	Shewanella sp. YQH10
tr A0A0C2YWZ5 A0A0C2YWZ5_9PROT	3	Proteobacteria	Epsilonproteobacteria	Sulfurovum sp. AS07-7
tr A0A091ADE0 A0A091ADE0_AERSA	4	Proteobacteria	Gammaproteobacteria	Aeromonas salmonicida
tr A0A0C2UYM8 A0A0C2UYM8_9PROT	3	Proteobacteria	Epsilonproteobacteria	Sulfurovum sp. FS06-10
tr F7S7F1 F7S7F1_9PROT	3	Proteobacteria	Alphaproteobacteria	Acidiphilium sp. PM
tr Q0VLU5 Q0VLU5_ALCBS	6	Proteobacteria	Gammaproteobacteria	Alcanivorax borkumensis
tr M1PHR4 M1PHR4_DESSD	8	Proteobacteria	Deltaproteobacteria	Desulfocapsa sulfexigens
tr D1P4W6 D1P4W6_9ENTR	5	Proteobacteria	Gammaproteobacteria	Providencia rustigianii
tr Q7MKY5 Q7MKY5_VIBVY	4	Proteobacteria	Gammaproteobacteria	Vibrio vulnificus
tr Q65UD6 Q65UD6_MANSNM	4	Proteobacteria	Gammaproteobacteria	[Mannheimia] succiniciproducens
tr R1IEJ1 R1IEJ1_9GAMM	4	Proteobacteria	Gammaproteobacteria	Grimontia indica
tr A1SWU9 A1SWU9_PSYIN	4	Proteobacteria	Gammaproteobacteria	Psychromonas ingrahamii

tr A0A099L1N4 A0A099L1N4_9GAMM	11	Proteobacteria	Gammaproteobacteria	Thalassotalea sp. ND16A
tr L6NP03 L6NP03_SALEN	19	Proteobacteria	Gammaproteobacteria	Salmonella enterica
tr Q6AQF6 Q6AQF6_DESPS	5	Proteobacteria	Deltaproteobacteria	Desulfotalea psychrophila
tr E1VMF2 E1VMF2_9GAMM	5	Proteobacteria	Gammaproteobacteria	gamma proteobacterium HdN1
tr M9YIV7 M9YIV7_AZOVI	5	Proteobacteria	Gammaproteobacteria	Azotobacter vinelandii
tr A0A081NCZ7 A0A081NCZ7_9GAMM	5	Proteobacteria	Gammaproteobacteria	Endozoicomonas numazuensis
tr A0A0A2VIN0 A0A0A2VIN0_BEABA	20	Ascomycota	Sordariomycetes	Beauveria bassiana
tr K8BKY4 K8BKY4_9ENTR	30	Proteobacteria	Gammaproteobacteria	Cronobacter turicensis
tr T0CD20 T0CD20_9DELT	8	Proteobacteria	Deltaproteobacteria	Bacteriovorax sp. BAL6_X
tr A0A0A2I518 A0A0A2I518_9DELT	4	Proteobacteria	Deltaproteobacteria	Desulfobulbus sp. Tol-SR
tr K5YSZ8 K5YSZ8_9PROT	3	Proteobacteria	Alphaproteobacteria	Acidocella sp. MX-AZ02
tr E8RBT1 E8RBT1_DESPD	4	Proteobacteria	Deltaproteobacteria	Desulfobulbus propionicus
tr A6FIP2 A6FIP2_9GAMM	4	Proteobacteria	Gammaproteobacteria	Moritella sp. PE36
tr D4H238 D4H238_DENA2	11	Deferribacteres	Deferribacteres	Denitrovibrio acetiphilus
tr A6DBM5 A6DBM5_9PROT	3	Proteobacteria	Epsilonproteobacteria	Caminibacter mediatlanticus
tr Q6MNT4 Q6MNT4_BDEBA	6	Proteobacteria	Deltaproteobacteria	Bdellovibrio bacteriovorus
tr M4V5W8 M4V5W8_9DELT	6	Proteobacteria	Deltaproteobacteria	Bdellovibrio exovorus
tr Q48A65 Q48A65_COLP3	11	Proteobacteria	Gammaproteobacteria	Colwellia psychrerythraea
tr A6DM96 A6DM96_9BACT	4	Lentisphaerae	Lentisphaeria	Lentisphaera araneosa
tr K2K470 K2K470_9GAMM	5	Proteobacteria	Gammaproteobacteria	Gallaecimonas xiamenensis
tr M5TMN6 M5TMN6_9PLAN	6	Planctomycetes	Planctomycetia	Rhodopirellula sp. SWK7
tr M5RZ87 M5RZ87_9PLAN	6	Planctomycetes	Planctomycetia	Rhodopirellula maiorica
tr E8R5N3 E8R5N3_ISOPI	16	Planctomycetes	Planctomycetia	Isosphaera pallida
tr V4KT63 V4KT63_9DELT	4	Proteobacteria	Deltaproteobacteria	uncultured Desulfofustis sp. PB-SRB1
tr W0Z5H5 W0Z5H5_PSEAI	25	Proteobacteria	Gammaproteobacteria	Pseudomonas aeruginosa
tr G2HXQ5 G2HXQ5_9PROT	4	Proteobacteria	Epsilonproteobacteria	Arcobacter sp. L
tr K1YAB1 K1YAB1_9BACT	3			uncultured bacterium

tr I3CHA5 I3CHA5_9GAMM	6	Proteobacteria	Gammaproteobacteria	Beggiatoa alba
tr I4WAE0 I4WAE0_9GAMM	1	Proteobacteria	Gammaproteobacteria	Rhodanobacter sp. 115
tr E5Y3N4 E5Y3N4_BILWA	1	Proteobacteria	Deltaproteobacteria	Bilophila wadsworthia
tr U2ZN81 U2ZN81_PSEAC	1	Proteobacteria	Gammaproteobacteria	Pseudomonas alcaligenes
tr X1WKZ8 X1WKZ8_ACYPI	33	Arthropoda	Insecta	Acyrtosiphon pisum
tr A0A0B8NYA0 A0A0B8NYA0_9VIBR	6	Proteobacteria	Gammaproteobacteria	Vibrio sp. JCM 19231
tr W7DYQ2 W7DYQ2_9PROT	1	Proteobacteria	Alphaproteobacteria	Commensalibacter sp. MX01
tr A0A090RQ91 A0A090RQ91_9VIBR	6	Proteobacteria	Gammaproteobacteria	Vibrio sp. C7
tr R5QLU3 R5QLU3_9PROT	1	Proteobacteria	Alphaproteobacteria	Acetobacter sp. CAG:977
tr T2G944 T2G944_DESGI	1	Proteobacteria	Deltaproteobacteria	Desulfovibrio gigas
tr A0A059KS25 A0A059KS25_9BURK	1	Proteobacteria	Betaproteobacteria	Sphaerotilus natans
tr D8F981 D8F981_9DELT	1	Proteobacteria	Deltaproteobacteria	delta proteobacterium NaphS2
tr A0A0A7XF72 A0A0A7XF72_ACIBA	1	Proteobacteria	Gammaproteobacteria	Acinetobacter baumannii
tr A0A0B0HD74 A0A0B0HD74_SOVGS	1	Proteobacteria	Gammaproteobacteria	Solemya velum gill symbiont
tr R5EIQ1 R5EIQ1_9GAMM	1	Proteobacteria	Gammaproteobacteria	Succinatimonas sp. CAG:777
tr E5APT9 E5APT9_BURRH	1	Proteobacteria	Betaproteobacteria	Burkholderia rhizoxinica
tr Y0KET7 Y0KET7_9PROT	1	Proteobacteria	Betaproteobacteria	Methylophilaceae bacterium 11
tr K2BJ74 K2BJ74_9BACT	1			uncultured bacterium
tr A0A084IL35 A0A084IL35_9GAMM	1	Proteobacteria	Gammaproteobacteria	Salinisphaera hydrothermalis
tr Q0A6H4 Q0A6H4_ALKEH	1	Proteobacteria	Gammaproteobacteria	Alkalilimnicola ehrlichii
tr M1LXJ0 M1LXJ0_9PROT	1	Proteobacteria	Betaproteobacteria	Candidatus Kinetoplastibacterium galatii
tr A0A077ZFB4 A0A077ZFB4_TRITR	26	Nematoda	Enoplea	Trichuris trichiura
tr L0DYZ8 L0DYZ8_THIND	1	Proteobacteria	Gammaproteobacteria	Thioalkalivibrio nitratireducens
tr A0A089WLJ1 A0A089WLJ1_9PSED	1	Proteobacteria	Gammaproteobacteria	Pseudomonas cremoricolorata
tr K2BX90 K2BX90_9BACT	1			uncultured bacterium
tr S0G4N9 S0G4N9_9DELT	1	Proteobacteria	Deltaproteobacteria	Desulfotignum phosphitoxidans
tr Q6AKW0 Q6AKW0_DESPS	1	Proteobacteria	Deltaproteobacteria	Desulfotalea psychrophila

tr A0A090IGN5 A0A090IGN5_9GAMM	1	Proteobacteria	Gammaproteobacteria	Moritella viscosa
tr Q1K499 Q1K499_DESAC	1	Proteobacteria	Deltaproteobacteria	Desulfuromonas acetoxidans
tr I4B9F0 I4B9F0_TURPD	1	Spirochaetes	Spirochaetia	Turneriella parva
tr C7LQ95 C7LQ95_DESBD	1	Proteobacteria	Deltaproteobacteria	Desulfomicrobium baculatum
tr A0LFA1 A0LFA1_SYNFM	1	Proteobacteria	Deltaproteobacteria	Syntrophobacter fumaroxidans
tr E8RF78 E8RF78_DESPD	1	Proteobacteria	Deltaproteobacteria	Desulfobulbus propionicus
tr L8XXI9 L8XXI9_9GAMM	1	Proteobacteria	Gammaproteobacteria	Wohlfahrtimonas chitiniclastica
tr B5JEH5 B5JEH5_9BACT	1	Verrucomicrobia	Verrucomicrobiae	Verrucomicrobiae bacterium DG1235
tr Q2LQ52 Q2LQ52_SYNAS	1	Proteobacteria	Deltaproteobacteria	Syntrophus aciditrophicus
tr Q1Q2A0 Q1Q2A0_9BACT	1	Planctomycetes	Planctomycetia	Candidatus Kuenenia stuttgartiensis
tr F2NCT0 F2NCT0_DESAR	1	Proteobacteria	Deltaproteobacteria	Desulfobacca acetoxidans
tr Q07WT5 Q07WT5_SHEFN	1	Proteobacteria	Gammaproteobacteria	Shewanella frigidimarina
tr A0A059ZBY4 A0A059ZBY4_9GAMM	1	Proteobacteria	Gammaproteobacteria	Acidithiobacillus caldus
tr A0LFH2 A0LFH2_SYNFM	1	Proteobacteria	Deltaproteobacteria	Syntrophobacter fumaroxidans
tr Q0F1F6 Q0F1F6_9PROT	1	Proteobacteria	Zetaproteobacteria	Mariprofundus ferrooxydans
tr A0A0A6R484 A0A0A6R484_9GAMM	1	Proteobacteria	Gammaproteobacteria	Methylomonas denitrificans
tr I6ANI7 I6ANI7_9BACT	1	Verrucomicrobia	Opitutae	Opitutaceae bacterium TAV1
tr K7YS43 K7YS43_9PROT	1	Proteobacteria	Alphaproteobacteria	Candidatus Endolissoclinum faulkneri
tr K2BPX9 K2BPX9_9BACT	1			uncultured bacterium
tr G2DCT6 G2DCT6_9GAMM	1	Proteobacteria	Gammaproteobacteria	endosymbiont of Riftia pachyptila
tr A0A075WT33 A0A075WT33_9BACT	1	Thermodesulfobacteria	Thermodesulfobacteria	Thermodesulfobacterium commune
tr A0A077AZG9 A0A077AZG9_9RICK	1	Proteobacteria	Alphaproteobacteria	Candidatus Paracaedibacter acanthamoebae
tr A0A090ANW3 A0A090ANW3_9GAMM	1	Proteobacteria	Gammaproteobacteria	Thioploca ingrca
tr K5YWE0 K5YWE0_9PROT	1	Proteobacteria	Alphaproteobacteria	Acidocella sp. MX-AZ02
tr D6STH6 D6STH6_9DELTA	1	Proteobacteria	Deltaproteobacteria	Desulfonatronospira thiodismutans
tr I7ZC47 I7ZC47_9GAMM	1	Proteobacteria	Gammaproteobacteria	Hydrocarboniphaga effusa
tr F8A8S9 F8A8S9_THEID	1	Thermodesulfobacteria	Thermodesulfobacteria	Thermodesulfatator indicus

tr A0A077FLA7 A0A077FLA7_9RICK	1	Proteobacteria	Alphaproteobacteria	Rickettsiales bacterium Ac37b
tr A0A0B8UFY6 A0A0B8UFY6_PISSA	1	Proteobacteria	Gammaproteobacteria	Piscirickettsia salmonis
tr A8EXT9 A8EXT9_RICCK	1	Proteobacteria	Alphaproteobacteria	Rickettsia canadensis
tr W0JKP3 W0JKP3_DESAE	1	Proteobacteria	Deltaproteobacteria	Desulfurella acetivorans
tr C8ND21 C8ND21_9GAMM	1	Proteobacteria	Gammaproteobacteria	Cardiobacterium hominis
tr A5EYC2 A5EYC2_DICNV	6	Proteobacteria	Gammaproteobacteria	Dichelobacter nodosus
tr M1LLF7 M1LLF7_9PROT	1	Proteobacteria	Betaproteobacteria	Candidatus Kinetoplastibacterium desouzaii
tr I3TX61 I3TX61_TISMK	1	Proteobacteria	Alphaproteobacteria	Tistrella mobilis
tr Q2A4R8 Q2A4R8_FRATH	1	Proteobacteria	Gammaproteobacteria	Francisella tularensis
tr H8L3U9 H8L3U9_FRAAD	6	Proteobacteria	Gammaproteobacteria	Frateuria aurantia
tr K2J1F9 K2J1F9_9PROT	1	Proteobacteria	Alphaproteobacteria	Oceanibaculum indicum
tr D5QBK8 D5QBK8_KOMHA	1	Proteobacteria	Alphaproteobacteria	Komagataeibacter hansenii
tr A0A0A8F5E9 A0A0A8F5E9_NEIME	1	Proteobacteria	Betaproteobacteria	Neisseria meningitidis
tr D5MK82 D5MK82_9BACT	1			Candidatus Methylospirillum oxyfera
tr W2V2P6 W2V2P6_9RICK	1	Proteobacteria	Alphaproteobacteria	Candidatus Xenolissoclinum pacificiensis
tr Q0FAL5 Q0FAL5_9RHOB	1	Proteobacteria	Alphaproteobacteria	Rhodobacterales bacterium HTCC2255
tr Q2LS06 Q2LS06_SYNAS	1	Proteobacteria	Deltaproteobacteria	Syntrophus aciditrophicus
tr K2E4C8 K2E4C8_9BACT	1			uncultured bacterium
tr A3UD49 A3UD49_9RHOB	1	Proteobacteria	Alphaproteobacteria	Oceanicaulis sp. HTCC2633
tr A0A0C1QJC1 A0A0C1QJC1_9RICK	1	Proteobacteria	Alphaproteobacteria	endosymbiont of Acanthamoeba sp. UWC36
tr B3CMK7 B3CMK7_WOLPP	1	Proteobacteria	Alphaproteobacteria	Wolbachia endosymbiont of Culex quinquefasciatus
tr W0DXE2 W0DXE2_9GAMM	1	Proteobacteria	Gammaproteobacteria	Thioalkalimicrobium aerophilum
tr A0A061QFC6 A0A061QFC6_9PROT	1	Proteobacteria	Alphaproteobacteria	alpha proteobacterium Q-1
tr A0A086YDD8 A0A086YDD8_9RHOB	1	Proteobacteria	Alphaproteobacteria	Haematobacter missouriensis
tr T0ZPG4 T0ZPG4_9ZZZZ	1			mine drainage metagenome
tr S5YB63 S5YB63_PARAH	1	Proteobacteria	Alphaproteobacteria	Paracoccus aminophilus
tr R5QNA7 R5QNA7_9PROT	1	Proteobacteria	Alphaproteobacteria	Acetobacter sp. CAG:977

tr S9QYP4 S9QYP4_9RHOB	1	Proteobacteria	Alphaproteobacteria	Rubellimicrobium thermophilum
tr M4VEA5 M4VEA5_9DELT	1	Proteobacteria	Deltaproteobacteria	Bdellovibrio exovorus
tr C8X0M3 C8X0M3_DESRD	1	Proteobacteria	Deltaproteobacteria	Desulfohalobium retbaense
tr G9ZVS6 G9ZVS6_9PROT	1	Proteobacteria	Alphaproteobacteria	Acetobacteraceae bacterium AT-5844
tr G2I4S7 G2I4S7_KOMMN	1	Proteobacteria	Alphaproteobacteria	Komagataeibacter medellinensis
tr A0A077C2N2 A0A077C2N2_9RICK	1	Proteobacteria	Alphaproteobacteria	Candidatus Caedibacter acanthamoebae
tr D1AD49 D1AD49_THECD	2	Actinobacteria	Actinobacteria	Thermomonospora curvata
tr D6KSC1 D6KSC1_9FIRM	1	Firmicutes	Negativicutes	Veillonella sp. 6_1_27
tr Q5H658 Q5H658_XANOR	1	Proteobacteria	Gammaproteobacteria	Xanthomonas oryzae
tr R5R5J3 R5R5J3_9PROT	1	Proteobacteria		Proteobacteria bacterium CAG:495
tr B9KHI7 B9KHI7_ANAMF	1	Proteobacteria	Alphaproteobacteria	Anaplasma marginale
tr Q2W3M7 Q2W3M7_MAGSA	1	Proteobacteria	Alphaproteobacteria	Magnetospirillum magneticum
tr A0A078L431 A0A078L431_9GAMM	1	Proteobacteria	Gammaproteobacteria	Legionella massiliensis
tr H8FPR4 H8FPR4_PHAMO	1	Proteobacteria	Alphaproteobacteria	Phaeospirillum molischianum
tr B5YIL8 B5YIL8_THEYD	1	Nitrospirae	Nitrospira	Thermodesulfovibrio yellowstonii
tr A5CEP7 A5CEP7_ORITB	1	Proteobacteria	Alphaproteobacteria	Orientia tsutsugamushi
tr O66784 O66784_AQUAE	1	Aquificae	Aquificae	Aquifex aeolicus
tr L8K1H1 L8K1H1_9BACT	1	Bacteroidetes	Cytophagia	Fulvivirga imtechensis
tr W9AP53 W9AP53_9MYCO	2	Actinobacteria	Actinobacteria	Mycobacterium cosmeticum
tr A0A059G889 A0A059G889_9RHOB	1	Proteobacteria	Alphaproteobacteria	Hyphomonas oceanitis
tr Q5HC50 Q5HC50_EHRRW	1	Proteobacteria	Alphaproteobacteria	Ehrlichia ruminantium
tr E1QG67 E1QG67_DESB2	1	Proteobacteria	Deltaproteobacteria	Desulfarculus baarsii
tr F2NGX9 F2NGX9_DESAR	6	Proteobacteria	Deltaproteobacteria	Desulfobacca acetoxidans
tr J2FZ00 J2FZ00_9CAUL	1	Proteobacteria	Alphaproteobacteria	Caulobacter sp. AP07
tr D3PDB7 D3PDB7_DEFDS	1	Deferribacteres	Deferribacteres	Deferribacter desulfuricans
tr A0A090VXL3 A0A090VXL3_9FLAO	1	Bacteroidetes	Flavobacteriia	Jejuia pallidilutea
tr A8UTJ7 A8UTJ7_9AQUI	1	Aquificae	Aquificae	Hydrogenivirga sp. 128-5-R1-1

tr X5GWN0 X5GWN0_9RICK	1	Proteobacteria	Alphaproteobacteria	Neorickettsia helminthoeca
tr A0A0A0CYI9 A0A0A0CYI9_9PROT	1	Proteobacteria	Alphaproteobacteria	Inquilinus limosus
tr M4S5I1 M4S5I1_9SPHN	1	Proteobacteria	Alphaproteobacteria	Sphingomonas sp. MM-1
tr D5BSN9 D5BSN9_PUNMI	1	Proteobacteria	Alphaproteobacteria	Candidatus Puniceispirillum marinum
tr F9N659 F9N659_9FIRM	1	Firmicutes	Negativicutes	Veillonella sp. oral taxon 780
tr F1YQK0 F1YQK0_9PROT	1	Proteobacteria	Alphaproteobacteria	Acetobacter pomorum
tr W5TFY4 W5TFY4_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia nova
tr Q0BRB9 Q0BRB9_GRABC	1	Proteobacteria	Alphaproteobacteria	Granulibacter bethesdensis
tr U2WDD5 U2WDD5_9PROT	1	Proteobacteria	Alphaproteobacteria	alpha proteobacterium RS24
tr G6EZ80 G6EZ80_9PROT	1	Proteobacteria	Alphaproteobacteria	Commensalibacter intestini
tr R5QMG9 R5QMG9_9PROT	1	Proteobacteria		Proteobacteria bacterium CAG:495
tr T0SGM9 T0SGM9_9DELT	1	Proteobacteria	Deltaproteobacteria	Bacteriovorax sp. Seq25_V
tr F4CXJ4 F4CXJ4_PSEUX	2	Actinobacteria	Actinobacteria	Pseudonocardia dioxanivorans
tr W7JBX5 W7JBX5_9PSEU	1	Actinobacteria	Actinobacteria	Actinokineospora sp. EG49
tr A0A099DAR3 A0A099DAR3_9ACTO	2	Actinobacteria	Actinobacteria	Actinopolyspora erythraea
tr A0A0C1P3T8 A0A0C1P3T8_9PSEU	2	Actinobacteria	Actinobacteria	Prauserella sp. Am3
tr A0A0B7CJ46 A0A0B7CJ46_9PSEU	2	Actinobacteria	Actinobacteria	Kibdelosporangium sp. MJ126-NF4
tr W7SR07 W7SR07_9PSEU	2	Actinobacteria	Actinobacteria	Kutzneria sp. 744
tr J1S703 J1S703_9ACTO	2	Actinobacteria	Actinobacteria	Streptomyces auratus
tr T2RPW9 T2RPW9_SACER	2	Actinobacteria	Actinobacteria	Saccharopolyspora erythraea
tr H6RMU8 H6RMU8_BLASD	1	Actinobacteria	Actinobacteria	Blastococcus saxobsidens
tr A0A0A0J9Q0 A0A0A0J9Q0_9MICO	1	Actinobacteria	Actinobacteria	Knoellia flava
tr M3TSE7 M3TSE7_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia paraffinivorans
tr E2PY83 E2PY83_STRC2	2	Actinobacteria	Actinobacteria	Streptomyces clavuligerus
tr G0FS99 G0FS99_9AMYMS	1	Actinobacteria	Actinobacteria	Amycolatopsis mediterranei
tr E2SGB0 E2SGB0_9ACTO	1	Actinobacteria	Actinobacteria	Aeromicrobium marinum
tr R7WR74 R7WR74_9NOCA	2	Actinobacteria	Actinobacteria	Rhodococcus rhodnii

tr E9V1A1 E9V1A1_9ACTO	1	Actinobacteria	Actinobacteria	Nocardioideae bacterium Broad-1
tr D5UQ84 D5UQ84_TSUPD	1	Actinobacteria	Actinobacteria	Tsukamurella paurometabola
tr A0A076N3Z6 A0A076N3Z6_AMYME	2	Actinobacteria	Actinobacteria	Amycolatopsis methanolica
tr F6EHT4 F6EHT4_AMYSD	1	Actinobacteria	Actinobacteria	Amycolicoccus subflavus
tr E4WD60 E4WD60_RHOE1	2	Actinobacteria	Actinobacteria	Rhodococcus equi
tr D3QB64 D3QB64_STANL	2	Actinobacteria	Actinobacteria	Stackebrandtia nassauensis
tr A0A0A1DSY0 A0A0A1DSY0_NOCSI	1	Actinobacteria	Actinobacteria	Pimelobacter simplex
tr D1A3A0 D1A3A0_THECD	2	Actinobacteria	Actinobacteria	Thermomonospora curvata
tr A1SKI8 A1SKI8_NOCSJ	1	Actinobacteria	Actinobacteria	Nocardioides sp. JS614
tr E9UWC5 E9UWC5_9ACTO	2	Actinobacteria	Actinobacteria	Nocardioideae bacterium Broad-1
tr E2SEJ7 E2SEJ7_9ACTO	1	Actinobacteria	Actinobacteria	Aeromicrobium marinum
tr L2TT79 L2TT79_9NOCA	2	Actinobacteria	Actinobacteria	Rhodococcus wratislaviensis
tr X8B1E4 X8B1E4_MYCAV	2	Actinobacteria	Actinobacteria	Mycobacterium avium
tr C1BB82 C1BB82_RHOOB	2	Actinobacteria	Actinobacteria	Rhodococcus opacus
tr L7L5Y6 L7L5Y6_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia hirsuta
tr H0RGF1 H0RGF1_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia polyisoprenivorans
tr W8HMK3 W8HMK3_RHOOP	1	Actinobacteria	Actinobacteria	Rhodococcus opacus
tr E2S874 E2S874_9ACTO	1	Actinobacteria	Actinobacteria	Aeromicrobium marinum
tr R7XXX2 R7XXX2_9ACTO	1	Actinobacteria	Actinobacteria	Nocardioides sp. CF8
tr L7LAD3 L7LAD3_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia hirsuta
tr W5WSC8 W5WSC8_9PSEU	1	Actinobacteria	Actinobacteria	Kutzneria albida
tr E6JDS6 E6JDS6_9ACTO	1	Actinobacteria	Actinobacteria	Dietzia cinnamomea
tr G7GSR3 G7GSR3_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr H5X8G1 H5X8G1_9PSEU	2	Actinobacteria	Actinobacteria	Saccharomonospora marina
tr X7ZXX3 X7ZXX3_MYCXE	6	Actinobacteria	Actinobacteria	Mycobacterium xenopi
tr L7LKU3 L7LKU3_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia sihwensis
tr J4TJB4 J4TJB4_9MYCO	1	Actinobacteria	Actinobacteria	Mycobacterium colombiense

tr X7YM24 X7YM24_MYCKA	2	Actinobacteria	Actinobacteria	Mycobacterium kansasii
tr A0A024M5I3 A0A024M5I3_9MYCO	10	Actinobacteria	Actinobacteria	Mycobacterium farcinogenes
tr H5X5Q8 H5X5Q8_9PSEU	1	Actinobacteria	Actinobacteria	Saccharomonospora marina
tr E9V0Y9 E9V0Y9_9ACTO	1	Actinobacteria	Actinobacteria	Nocardioideaceae bacterium Broad-1
tr C3JUL6 C3JUL6_RHOER	1	Actinobacteria	Actinobacteria	Rhodococcus erythropolis
tr X8CLF3 X8CLF3_MYCIT	12	Actinobacteria	Actinobacteria	Mycobacterium intracellulare
tr G7GKE4 G7GKE4_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr G7GUZ7 G7GUZ7_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr Q5YYPJ0 Q5YYPJ0_NOCSA	1	Actinobacteria	Actinobacteria	Nocardia farcinica
tr X8DN68 X8DN68_MYCXE	6	Actinobacteria	Actinobacteria	Mycobacterium xenopi
tr A0A0A1DL73 A0A0A1DL73_NOCSI	1	Actinobacteria	Actinobacteria	Pimelobacter simplex
tr A0A0B8NG66 A0A0B8NG66_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia seriolae
tr C1A0D9 C1A0D9_RHOE4	2	Actinobacteria	Actinobacteria	Rhodococcus erythropolis
tr A0A098BNV6 A0A098BNV6_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus ruber
tr L8DFS3 L8DFS3_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus sp. AW25M09
tr E2SCQ8 E2SCQ8_9ACTO	2	Actinobacteria	Actinobacteria	Aeromicrobium marinum
tr D0L6Z6 D0L6Z6_GORB4	1	Actinobacteria	Actinobacteria	Gordonia bronchialis
tr A0A0A1DP83 A0A0A1DP83_NOCSI	2	Actinobacteria	Actinobacteria	Pimelobacter simplex
tr A0A049DYL2 A0A049DYL2_MYCAV	1	Actinobacteria	Actinobacteria	Mycobacterium avium
tr F5YX50 F5YX50_MYCSD	1	Actinobacteria	Actinobacteria	Mycobacterium sp. JDM601
tr W5TJZ0 W5TJZ0_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia nova
tr D2B9V9 D2B9V9_STRRD	2	Actinobacteria	Actinobacteria	Streptosporangium roseum
tr V8CVX7 V8CVX7_9ACTO	6	Actinobacteria	Actinobacteria	Williamsia sp. D3
tr K8XTI5 K8XTI5_RHOOP	1	Actinobacteria	Actinobacteria	Rhodococcus opacus
tr D1A3I7 D1A3I7_THECD	2	Actinobacteria	Actinobacteria	Thermomonospora curvata
tr H0R663 H0R663_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr M2VYX2 M2VYX2_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus triatomae

tr F6EN10 F6EN10_AMYSD	1	Actinobacteria	Actinobacteria	Amycolicoccus subflavus
tr F6EHS4 F6EHS4_AMYSD	1	Actinobacteria	Actinobacteria	Amycolicoccus subflavus
tr D1AD47 D1AD47_THECD	2	Actinobacteria	Actinobacteria	Thermomonospora curvata
tr E9UWP3 E9UWP3_9ACTO	1	Actinobacteria	Actinobacteria	Nocardioideae bacterium Broad-1
tr H5X8G0 H5X8G0_9PSEU	1	Actinobacteria	Actinobacteria	Saccharomonospora marina
tr R4MBA2 R4MBA2_MYCTX	1	Actinobacteria	Actinobacteria	Mycobacterium tuberculosis
tr G7GP50 G7GP50_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr A0A034UEJ5 A0A034UEJ5_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia brasiliensis
tr H0R4X4 H0R4X4_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr H0QWF9 H0QWF9_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr L8DEL3 L8DEL3_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus sp. AW25M09
tr G4HR53 G4HR53_MYCRH	1	Actinobacteria	Actinobacteria	Mycobacterium rhodesiae
tr H5UKZ3 H5UKZ3_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia terrae
tr H0QWP1 H0QWP1_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr G7H7G1 G7H7G1_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia araii
tr A0A0C1LBJ1 A0A0C1LBJ1_9PSEU	2	Actinobacteria	Actinobacteria	Prauserella sp. Am3
tr G7GTT1 G7GTT1_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr A0A0A1FTG8 A0A0A1FTG8_9MYCO	1	Actinobacteria	Actinobacteria	Mycobacterium sp. VKM Ac-1817D
tr J9SEN1 J9SEN1_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia sp. KTR9
tr A0A069JAN8 A0A069JAN8_9NOCA	2	Actinobacteria	Actinobacteria	Rhodococcus qingshengii
tr D1A3A1 D1A3A1_THECD	1	Actinobacteria	Actinobacteria	Thermomonospora curvata
tr L7LAG4 L7LAG4_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia hirsuta
tr H5UG93 H5UG93_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia terrae
tr R4UZM2 R4UZM2_MYCAB	1	Actinobacteria	Actinobacteria	Mycobacterium abscessus
tr Q82B07 Q82B07_STRAW	1	Actinobacteria	Actinobacteria	Streptomyces avermitilis
tr J9RFH6 J9RFH6_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia sp. KTR9
tr H6RCR8 H6RCR8_NOCCG	1	Actinobacteria	Actinobacteria	Nocardia cyriacigeorgica

tr M2VAL0 M2VAL0_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus triatomae
tr H6RMV0 H6RMV0_BLASD	1	Actinobacteria	Actinobacteria	Blastococcus saxobsidens
tr R1IB31 R1IB31_9PSEU	1	Actinobacteria	Actinobacteria	Amycolatopsis vancoresmycina
tr G7GXB3 G7GXB3_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia araii
tr E2SGB1 E2SGB1_9ACTO	1	Actinobacteria	Actinobacteria	Aeromicrobium marinum
tr G7GSQ0 G7GSQ0_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr G7GKE2 G7GKE2_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr D2B9V8 D2B9V8_STRRD	1	Actinobacteria	Actinobacteria	Streptosporangium roseum
tr A0A0B8NBL1 A0A0B8NBL1_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia seriolae
tr E5XTR1 E5XTR1_9ACTO	6	Actinobacteria	Actinobacteria	Segniliparus rugosus
tr R7XWT8 R7XWT8_9ACTO	24	Actinobacteria	Actinobacteria	Nocardioides sp. CF8
tr F4CXJ2 F4CXJ2_PSEUX	1	Actinobacteria	Actinobacteria	Pseudonocardia dioxanivorans
tr Q5YVH1 Q5YVH1_NOCHA	1	Actinobacteria	Actinobacteria	Nocardia farcinica
tr D5UP35 D5UP35_TSUPD	1	Actinobacteria	Actinobacteria	Tsukamurella paurometabola
tr U1ZJL3 U1ZJL3_9BURK	1	Proteobacteria	Betaproteobacteria	Alcaligenes sp. EGD-AK7
tr A0A031MIE7 A0A031MIE7_9PSED	1	Proteobacteria	Gammaproteobacteria	Pseudomonas bauzanensis
tr J6I7B6 J6I7B6_9ENTR	1	Proteobacteria	Gammaproteobacteria	Klebsiella sp. OBRC7
tr N6YC44 N6YC44_9RHOO	1	Proteobacteria	Betaproteobacteria	Thauera sp. 63
tr Q2Y8L0 Q2Y8L0_NITMU	1	Proteobacteria	Betaproteobacteria	Nitrospira multiformis
tr A0A0B2DAV4 A0A0B2DAV4_9GAMM	1	Proteobacteria	Gammaproteobacteria	Serpens flexibilis
tr H2FYH2 H2FYH2_OCESG	1	Proteobacteria	Gammaproteobacteria	Oceanimonas sp. GK1
tr H8L0A6 H8L0A6_FRAAD	1	Proteobacteria	Gammaproteobacteria	Frateuria aurantia
tr C4LEE8 C4LEE8_TOLAT	1	Proteobacteria	Gammaproteobacteria	Tolumonas auensis
tr W0PAK2 W0PAK2_9BURK	1	Proteobacteria	Betaproteobacteria	Advenella mimigardefordensis
tr T1CD74 T1CD74_9ZZZZ	1			mine drainage metagenome
tr T2LCY9 T2LCY9_9GAMM	1	Proteobacteria	Gammaproteobacteria	Halomonas sp. A3H3
tr A0A072N462 A0A072N462_9ALTE	1	Proteobacteria	Gammaproteobacteria	Marinobacter sp. AK21

tr G5Q9L4 G5Q9L4_SALMO	1	Proteobacteria	Gammaproteobacteria	Salmonella enterica
tr U7P997 U7P997_9GAMM	1	Proteobacteria	Gammaproteobacteria	Halomonas sp. PBN3
tr A0A0A0M9P8 A0A0A0M9P8_9GAMM	1	Proteobacteria	Gammaproteobacteria	Lysobacter defluvii
tr I2B9J8 I2B9J8_SHIBC	1	Proteobacteria	Gammaproteobacteria	Shimwellia blattae
tr A0A077DC69 A0A077DC69_9BURK	1	Proteobacteria	Betaproteobacteria	Basilea psittacipulmonis
tr A1WY43 A1WY43_HALHL	1	Proteobacteria	Gammaproteobacteria	Halorhodospira halophila
tr V8G7S9 V8G7S9_9BURK	1	Proteobacteria	Betaproteobacteria	Pelistega sp. HM-7
tr A0A096BDQ0 A0A096BDQ0_9BURK	1	Proteobacteria	Betaproteobacteria	Oligella urethralis
tr X5M6E7 X5M6E7_9PROT	1	Proteobacteria	Alphaproteobacteria	Candidatus Phaeomarinobacter ectocarpus
tr A7HW40 A7HW40_PARL1	1	Proteobacteria	Alphaproteobacteria	Parvibaculum lavamentivorans
tr A0A081B9S0 A0A081B9S0_9PROT	1	Proteobacteria	Alphaproteobacteria	alpha proteobacterium MA2
tr W9H4G6 W9H4G6_9PROT	1	Proteobacteria	Alphaproteobacteria	Skermanella stibiirens
tr M2TL71 M2TL71_9PROT	1	Proteobacteria	Alphaproteobacteria	alpha proteobacterium JLT2015
tr A0A0C1U256 A0A0C1U256_9CYAN	1	Cyanobacteria		Scytonema millei
tr A0A069E8D6 A0A069E8D6_9RHOB	1	Proteobacteria	Alphaproteobacteria	Hyphomonas adhaerens
tr B6IT87 B6IT87_RHOCS	1	Proteobacteria	Alphaproteobacteria	Rhodospirillum centenum
tr G8APJ5 G8APJ5_AZOBR	1	Proteobacteria	Alphaproteobacteria	Azospirillum brasilense
tr K2DV61 K2DV61_9BACT	1			uncultured bacterium
tr D0CZC8 D0CZC8_9RHOB	1	Proteobacteria	Alphaproteobacteria	Citricella sp. SE45
tr S7U5S8 S7U5S8_9DELT	1	Proteobacteria	Deltaproteobacteria	Desulfovibrio sp. X2
tr B8DLS5 B8DLS5_DESVM	1	Proteobacteria	Deltaproteobacteria	Desulfovibrio vulgaris
tr A0A0B8RE09 A0A0B8RE09_9PROT	1	Proteobacteria	Alphaproteobacteria	alpha proteobacterium U9-li
tr A0A061QHA4 A0A061QHA4_9PROT	1	Proteobacteria	Alphaproteobacteria	alpha proteobacterium Q-1
tr A0A0A1PX21 A0A0A1PX21_9BACT	1			bacterium YEK0313
tr E3I3Y1 E3I3Y1_RHOVT	1	Proteobacteria	Alphaproteobacteria	Rhodomicrobium vanniellii
tr B4RE08 B4RE08_PHEZH	1	Proteobacteria	Alphaproteobacteria	Phenylobacterium zucineum
tr J7Q4T2 J7Q4T2_METSZ	1	Proteobacteria	Alphaproteobacteria	Methylocystis sp. SC2

tr T0GJ97 T0GJ97_9SPHN	1	Proteobacteria	Alphaproteobacteria	Sphingobium baderi
tr I2K9W2 I2K9W2_9PROT	1	Proteobacteria	Epsilonproteobacteria	Sulfurovum sp. AR
tr Q3J2I1 Q3J2I1_RHOS4	1	Proteobacteria	Alphaproteobacteria	Rhodobacter sphaeroides
tr D9QGF1 D9QGF1_BRESC	1	Proteobacteria	Alphaproteobacteria	Brevundimonas subvibrioides
tr A0A0C1IN25 A0A0C1IN25_9RHOB	1	Proteobacteria	Alphaproteobacteria	Ruegeria sp. ANG-R
tr A0A074MC36 A0A074MC36_ERYLO	1	Proteobacteria	Alphaproteobacteria	Erythrobacter longus
tr S6B3W9 S6B3W9_9PROT	1	Proteobacteria	Betaproteobacteria	Sulfuricella denitrificans
tr A0A0A8K3K2 A0A0A8K3K2_9RHIZ	1	Proteobacteria	Alphaproteobacteria	Methyloceanibacter caenitepidi
tr K7T2K7 K7T2K7_9HELI	1	Proteobacteria	Epsilonproteobacteria	Candidatus Sulfuricurvum sp. RIFRC-1
tr T0JP38 T0JP38_9HELI	1	Proteobacteria	Epsilonproteobacteria	Sulfurimonas sp. AST-10
tr M2SE07 M2SE07_9PROT	1	Proteobacteria	Alphaproteobacteria	alpha proteobacterium JLT2015
tr E0TB69 E0TB69_PARBH	1	Proteobacteria	Alphaproteobacteria	Parvularcula bermudensis
tr C6XN24 C6XN24_HIRBI	1	Proteobacteria	Alphaproteobacteria	Hirschia baltica
tr B1Z830 B1Z830_METPB	1	Proteobacteria	Alphaproteobacteria	Methylobacterium populi
tr A0A0A0D684 A0A0A0D684_9PROT	1	Proteobacteria	Alphaproteobacteria	Inquilingus limosus
tr I4YW72 I4YW72_9RHIZ	1	Proteobacteria	Alphaproteobacteria	Microvirga lotononidis
tr I3TKF0 I3TKF0_TISMK	1	Proteobacteria	Alphaproteobacteria	Tistrella mobilis
tr A0A095CYU7 A0A095CYU7_9SPHN	1	Proteobacteria	Alphaproteobacteria	Sphingopyxis sp. LC363
tr A0A087M978 A0A087M978_9PROT	1	Proteobacteria	Epsilonproteobacteria	Sulfurospirillum sp. SCADC
tr W0JMI0 W0JMI0_DESAE	1	Proteobacteria	Deltaproteobacteria	Desulfurella acetivorans
tr B8ET81 B8ET81_METSB	1	Proteobacteria	Alphaproteobacteria	Methylocella silvestris
tr A0A085EY42 A0A085EY42_9BRAD	1	Proteobacteria	Alphaproteobacteria	Bosea sp. LC85
tr B6R083 B6R083_9RHOB	1	Proteobacteria	Alphaproteobacteria	Pseudovibrio sp. JE062
tr D5BVM5 D5BVM5_NITHN	1	Proteobacteria	Gammaproteobacteria	Nitrosococcus halophilus
tr V4JE12 V4JE12_9DELT	1	Proteobacteria	Deltaproteobacteria	uncultured Desulfofustis sp. PB-SRB1
tr G2HRZ6 G2HRZ6_9PROT	1	Proteobacteria	Epsilonproteobacteria	Arcobacter sp. L
tr E8RQ92 E8RQ92_ASTEC	1	Proteobacteria	Alphaproteobacteria	Asticcacaulis excentricus

tr U4V650 U4V650_9RHIZ	1	Proteobacteria	Alphaproteobacteria	Ochrobactrum intermedium
tr U7G9H6 U7G9H6_9RHOB	1	Proteobacteria	Alphaproteobacteria	Labrenzia sp. C1B10
tr A0A086YEL8 A0A086YEL8_9RHOB	1	Proteobacteria	Alphaproteobacteria	Haematobacter missouriensis
tr W6LSR3 W6LSR3_9GAMM	1	Proteobacteria	Gammaproteobacteria	Candidatus Contendobacter odensis
tr D7A0D4 D7A0D4_STAND	1	Proteobacteria	Alphaproteobacteria	Starkeya novella
tr A0A085FIL3 A0A085FIL3_9RHIZ	1	Proteobacteria	Alphaproteobacteria	Devosia sp. LC5
tr J9A1J9 J9A1J9_9RHOB	1	Proteobacteria	Alphaproteobacteria	Rhodovulum sp. PH10
tr A9DQS1 A9DQS1_9RHOB	1	Proteobacteria	Alphaproteobacteria	Oceanibulbus indolifex
tr I1AR71 I1AR71_9RHOB	1	Proteobacteria	Alphaproteobacteria	Citreicella sp. 357
tr A8TM92 A8TM92_9PROT	1	Proteobacteria	Alphaproteobacteria	alpha proteobacterium BAL199
tr E6PQ34 E6PQ34_9ZZZZ	1			mine drainage metagenome
tr F8JCY2 F8JCY2_HYPSM	7	Proteobacteria	Alphaproteobacteria	Hyphomicrobium sp. MC1
tr D8PJK4 D8PJK4_9BACT	1	Nitrospirae	Nitrospira	Candidatus Nitrospira defluvii
tr A0A077AV80 A0A077AV80_9RICK	1	Proteobacteria	Alphaproteobacteria	Candidatus Paracaedibacter acanthamoebae
tr V4RDJ9 V4RDJ9_9RHIZ	1	Proteobacteria	Alphaproteobacteria	Lutibaculum baratangense
tr A0A0C2W1Z7 A0A0C2W1Z7_9PROT	1	Proteobacteria	Epsilonproteobacteria	Sulfurovum sp. FS08-3
tr C9Y6W8 C9Y6W8_9BURK	1	Proteobacteria	Betaproteobacteria	putative symbiont of Hydra magnipapillata
tr A0A0C2VMD8 A0A0C2VMD8_9PROT	1	Proteobacteria	Epsilonproteobacteria	Sulfurovum sp. FS06-10
tr E6WYF4 E6WYF4_NITSE	1	Proteobacteria	Epsilonproteobacteria	Nitratifactor salsuginis
tr D7DJ74 D7DJ74_METV0	1	Proteobacteria	Betaproteobacteria	Methylotenera versatilis
tr A0A011QPF4 A0A011QPF4_9PROT	1	Proteobacteria	Betaproteobacteria	Candidatus Accumulibacter sp. BA-93
tr F2J3B6 F2J3B6_POLGS	1	Proteobacteria	Alphaproteobacteria	Polymorphum gilvum
tr I3BYE7 I3BYE7_9GAMM	1	Proteobacteria	Gammaproteobacteria	Thiothrix nivea
tr A9NDG9 A9NDG9_COXBR	1	Proteobacteria	Gammaproteobacteria	Coxiella burnetii
tr A8I863 A8I863_AZOC5	1	Proteobacteria	Alphaproteobacteria	Azorhizobium caulinodans
tr A0A017HET3 A0A017HET3_9RHOB	1	Proteobacteria	Alphaproteobacteria	Loktanella hongkongensis
tr Q47GR7 Q47GR7_DECAR	1	Proteobacteria	Betaproteobacteria	Dechloromonas aromatica

tr Q13AL4 Q13AL4_RHOPS	1	Proteobacteria	Alphaproteobacteria	Rhodopseudomonas palustris
tr K2BGD7 K2BGD7_9BACT	1			uncultured bacterium
tr K9GQ74 K9GQ74_9PROT	1	Proteobacteria	Alphaproteobacteria	Caenispirillum salinarum
tr D0L0H1 D0L0H1_HALNC	1	Proteobacteria	Gammaproteobacteria	Halothiobacillus neapolitanus
tr S9RL13 S9RL13_9RHOB	1	Proteobacteria	Alphaproteobacteria	Salipiger mucosus
tr A0A099FAI4 A0A099FAI4_PARVE	1	Proteobacteria	Alphaproteobacteria	Paracoccus versutus
tr A0A094MYJ3 A0A094MYJ3_9GAMM	1	Proteobacteria	Gammaproteobacteria	Thiobacillus prosperus
tr N0B1J2 N0B1J2_9RHIZ	7	Proteobacteria	Alphaproteobacteria	Hyphomicrobium denitrificans
tr A0A0A8K6N0 A0A0A8K6N0_9RHIZ	7	Proteobacteria	Alphaproteobacteria	Methyloceanibacter caenitepidi
tr Q11I37 Q11I37_CHESEB	1	Proteobacteria	Alphaproteobacteria	Chelativorans sp. BNC1
tr W0BHR6 W0BHR6_9GAMM	1	Proteobacteria	Gammaproteobacteria	Legionella oakridgensis
tr A5IDN0 A5IDN0_LEGPC	1	Proteobacteria	Gammaproteobacteria	Legionella pneumophila
tr W0TJP3 W0TJP3_9GAMM	1	Proteobacteria	Gammaproteobacteria	Thiolapillus brandeum
tr X4Z9H6 X4Z9H6_9BORD	7	Proteobacteria	Betaproteobacteria	Bordetella holmesii
tr X7ELT6 X7ELT6_9RHOB	1	Proteobacteria	Alphaproteobacteria	Roseivivax halodurans
tr A0A090BUD1 A0A090BUD1_9GAMM	1	Proteobacteria	Gammaproteobacteria	Thioploca ingrca
tr K2BNS1 K2BNS1_9BACT	1			uncultured bacterium
tr H5SAC6 H5SAC6_9GAMM	1	Proteobacteria	Gammaproteobacteria	uncultured gamma proteobacterium
tr H0PSW3 H0PSW3_9RHOO	1	Proteobacteria	Betaproteobacteria	Azoarcus sp. KH32C
tr A4BL42 A4BL42_9GAMM	1	Proteobacteria	Gammaproteobacteria	Nitrococcus mobilis
tr V5SSGA2 V5SSGA2_9RHIZ	7	Proteobacteria	Alphaproteobacteria	Hyphomicrobium nitratorans
tr Q3SM48 Q3SM48_THIDA	1	Proteobacteria	Betaproteobacteria	Thiobacillus denitrificans
tr W0V0P9 W0V0P9_9BURK	1	Proteobacteria	Betaproteobacteria	Janthinobacterium agaricidamnosum
tr A8PLY9 A8PLY9_9COXI	1	Proteobacteria	Gammaproteobacteria	Rickettsiella grylli
tr G4RGN1 G4RGN1_PELHB	1	Proteobacteria	Alphaproteobacteria	Pelagibacterium halotolerans
tr U2Z7D0 U2Z7D0_9RHOB	1	Proteobacteria	Alphaproteobacteria	Loktanella cinnabarina
tr M9RIN2 M9RIN2_9RHOB	1	Proteobacteria	Alphaproteobacteria	Octadecabacter arcticus

tr A0A0A1FJ80 A0A0A1FJ80_9BURK	1	Proteobacteria	Betaproteobacteria	Collimonas arenae
tr A0A093TGR2 A0A093TGR2_RALSL	1	Proteobacteria	Betaproteobacteria	Ralstonia solanacearum
tr A0A099EVU0 A0A099EVU0_9RHOB	1	Proteobacteria	Alphaproteobacteria	Paracoccus halophilus
tr B2IFF5 B2IFF5_BEII9	7	Proteobacteria	Alphaproteobacteria	Beijerinckia indica
tr Q0A9D5 Q0A9D5_ALKEH	1	Proteobacteria	Gammaproteobacteria	Alkalilimnicola ehrlichii
tr A0A0A8GQ79 A0A0A8GQ79_9PROT	1	Proteobacteria	Epsilonproteobacteria	Campylobacter peloridis
tr A0A084INE6 A0A084INE6_9GAMM	1	Proteobacteria	Gammaproteobacteria	Salinisphaera hydrothermalis
tr M3IM68 M3IM68_9PROT	1	Proteobacteria	Epsilonproteobacteria	Campylobacter showae
tr L8XXV6 L8XXV6_9GAMM	1	Proteobacteria	Gammaproteobacteria	Wohlfahrtiimonas chitiniclastica
tr T1X3K2 T1X3K2_VARPD	1	Proteobacteria	Betaproteobacteria	Variovorax paradoxus
tr F5Y4Q4 F5Y4Q4_RAMTT	1	Proteobacteria	Betaproteobacteria	Ramlibacter tataouinensis
tr K2BWT1 K2BWT1_9BACT	1			uncultured bacterium
tr M5DVB0 M5DVB0_9PROT	1	Proteobacteria	Betaproteobacteria	Nitrosospira sp. APG3
tr B4UAD8 B4UAD8_ANASK	29	Proteobacteria	Deltaproteobacteria	Anaeromyxobacter sp. K
tr Q0G008 Q0G008_9RHIZ	1	Proteobacteria	Alphaproteobacteria	Fulvimarina pelagi
tr S3XRK7 S3XRK7_9PROT	1	Proteobacteria	Epsilonproteobacteria	Campylobacter ureolyticus
tr A0A059HYU4 A0A059HYU4_CAMJU	1	Proteobacteria	Epsilonproteobacteria	Campylobacter jejuni
tr O67491 O67491_AQUAE	1	Aquificae	Aquificae	Aquifex aeolicus
tr A1SVF6 A1SVF6_PSYIN	1	Proteobacteria	Gammaproteobacteria	Psychromonas ingrahamii
tr N6V7S3 N6V7S3_9RHIZ	1	Proteobacteria	Alphaproteobacteria	Rhizobium freirei
tr F5R923 F5R923_METUF	1	Proteobacteria	Betaproteobacteria	Methyloversatilis universalis
tr Q1YMZ5 Q1YMZ5_MOBAS	1	Proteobacteria	Alphaproteobacteria	Aurantimonas manganooxydans
tr E0MKS7 E0MKS7_9RHOB	1	Proteobacteria	Alphaproteobacteria	Ahrensia sp. R2A130
tr L0EV30 L0EV30_LIBCB	36	Proteobacteria	Alphaproteobacteria	Liberibacter crescens
tr Q1GYQ2 Q1GYQ2_METFK	1	Proteobacteria	Betaproteobacteria	Methylobacillus flagellatus
tr A0A0A8BEL8 A0A0A8BEL8_9BURK	1	Proteobacteria	Betaproteobacteria	Pandoraea sputorum
tr C9RK73 C9RK73_FIBSS	1	Fibrobacteres	Fibrobacteria	Fibrobacter succinogenes

tr U1H7F6 U1H7F6_9BRAD	1	Proteobacteria	Alphaproteobacteria	Bradyrhizobium sp. DFCI-1
tr E7G4E4 E7G4E4_9HELI	1	Proteobacteria	Epsilonproteobacteria	Helicobacter suis
tr G3IS04 G3IS04_9GAMM	1	Proteobacteria	Gammaproteobacteria	Methylobacter tundripaludum
tr E6VPM6 E6VPM6_RHOPX	7	Proteobacteria	Alphaproteobacteria	Rhodopseudomonas palustris
tr U6B5C2 U6B5C2_9RHIZ	1	Proteobacteria	Alphaproteobacteria	Candidatus Liberibacter americanus
tr H9UGG4 H9UGG4_SPIAZ	1	Spirochaetes	Spirochaetia	Spirochaeta africana
tr C8PG52 C8PG52_9PROT	1	Proteobacteria	Epsilonproteobacteria	Campylobacter gracilis
tr E5AMH6 E5AMH6_BURRH	1	Proteobacteria	Betaproteobacteria	Burkholderia rhizoxinica
tr Q82TE2 Q82TE2_NITEU	1	Proteobacteria	Betaproteobacteria	Nitrosomonas europaea
tr T1DHA0 T1DHA0_9ZZZZ	1			mine drainage metagenome
tr A7ZD92 A7ZD92_CAMC1	1	Proteobacteria	Epsilonproteobacteria	Campylobacter concisus
tr A0A063Y3A9 A0A063Y3A9_9GAMM	1	Proteobacteria	Gammaproteobacteria	Nitrincola lacisaponensis
tr B0VHY9 B0VHY9_CLOAI	1	Cloacimonetes		Candidatus Cloacimonas acidaminovorans
tr F9ZMQ1 F9ZMQ1_ACICS	1	Proteobacteria	Gammaproteobacteria	Acidithiobacillus caldus
tr M1Q0H5 M1Q0H5_9ZZZZ	1			uncultured organism
tr E4QMA4 E4QMA4_METS6	1	Proteobacteria	Betaproteobacteria	Methylovorus sp. MP688
tr X0SVT9 X0SVT9_9ZZZZ	1			marine sediment metagenome
tr R9Q3A0 R9Q3A0_9AQUI	1	Aquificae	Aquificae	Hydrogenobaculum sp. SHO
tr A0A0A1VM91 A0A0A1VM91_9BURK	1	Proteobacteria	Betaproteobacteria	Acidovorax sp. MR-S7
tr H1XWC3 H1XWC3_9BACT	1			Caldithrix abyssi
tr U5XWV8 U5XWV8_CAMFE	1	Proteobacteria	Epsilonproteobacteria	Campylobacter fetus
tr A0A038GNJ3 A0A038GNJ3_9BURK	1	Proteobacteria	Betaproteobacteria	Burkholderia sp. MP-1
tr Q7MQT8 Q7MQT8_WOLSU	1	Proteobacteria	Epsilonproteobacteria	Wolinella succinogenes
tr D6Z3S5 D6Z3S5_DESAT	1	Proteobacteria	Deltaproteobacteria	Desulfurivibrio alkaliphilus
tr Q60CD6 Q60CD6_METCA	1	Proteobacteria	Gammaproteobacteria	Methylococcus capsulatus
tr E6QSE7 E6QSE7_9ZZZZ	1			mine drainage metagenome
tr U7DAR1 U7DAR1_9BACT	1	Fibrobacteres	Chitinivibrionia	Chitinivibrio alkaliphilus

tr E8WAI5 E8WAI5_STRFA	2	Actinobacteria	Actinobacteria	<i>Streptomyces pratensis</i>
tr W5WGQ0 W5WGQ0_9PSEU	2	Actinobacteria	Actinobacteria	<i>Kutzneria albida</i>
tr H5XNG6 H5XNG6_9PSEU	2	Actinobacteria	Actinobacteria	<i>Saccharomonospora cyanea</i>
tr F4CXJ7 F4CXJ7_PSEUX	2	Actinobacteria	Actinobacteria	<i>Pseudonocardia dioxanivorans</i>
tr A0A099D9G8 A0A099D9G8_9ACTO	2	Actinobacteria	Actinobacteria	<i>Actinopolyspora erythraea</i>
tr D9UWI5 D9UWI5_9ACTO	2	Actinobacteria	Actinobacteria	<i>Streptomyces</i> sp. AA4
tr M2Z3P3 M2Z3P3_9PSEU	2	Actinobacteria	Actinobacteria	<i>Amycolatopsis decaplanina</i>
tr A0A0A1DIE7 A0A0A1DIE7_NOCSI	2	Actinobacteria	Actinobacteria	<i>Pimelobacter simplex</i>
tr A0A0B7CGE0 A0A0B7CGE0_9PSEU	2	Actinobacteria	Actinobacteria	<i>Kibdelosporangium</i> sp. MJ126-NF4
tr A0A0C1L1Y3 A0A0C1L1Y3_9PSEU	2	Actinobacteria	Actinobacteria	<i>Prauserella</i> sp. Am3
tr C6WH34 C6WH34_ACTMD	2	Actinobacteria	Actinobacteria	<i>Actinosynnema mirum</i>
tr D2PUA3 D2PUA3_KRIFD	2	Actinobacteria	Actinobacteria	<i>Kribbella flavida</i>
tr W9DM11 W9DM11_9PSEU	2	Actinobacteria	Actinobacteria	<i>Amycolatopsis halophila</i>
tr A0A081EI46 A0A081EI46_STRFR	2	Actinobacteria	Actinobacteria	<i>Streptomyces fradiae</i>
tr V9XFQ6 V9XFQ6_9NOCA	2	Actinobacteria	Actinobacteria	<i>Rhodococcus pyridinivorans</i>
tr D3Q8W0 D3Q8W0_STANL	2	Actinobacteria	Actinobacteria	<i>Stackebrandtia nassauensis</i>
tr J9SC86 J9SC86_9ACTO	2	Actinobacteria	Actinobacteria	<i>Gordonia</i> sp. KTR9
tr H6RMV1 H6RMV1_BLASD	2	Actinobacteria	Actinobacteria	<i>Blastococcus saxobsidens</i>
tr R7Y1D9 R7Y1D9_9ACTO	2	Actinobacteria	Actinobacteria	<i>Nocardioides</i> sp. CF8
tr E6S9N9 E6S9N9_INTC7	2	Actinobacteria	Actinobacteria	<i>Intrasporangium calvum</i>
tr E6JBH9 E6JBH9_9ACTO	2	Actinobacteria	Actinobacteria	<i>Dietzia cinnamea</i>
tr E2SGB3 E2SGB3_9ACTO	2	Actinobacteria	Actinobacteria	<i>Aeromicrobium marinum</i>
tr A0A0A1DTM0 A0A0A1DTM0_NOCSI	2	Actinobacteria	Actinobacteria	<i>Pimelobacter simplex</i>
tr D1A3A3 D1A3A3_THECD	2	Actinobacteria	Actinobacteria	<i>Thermomonospora curvata</i>
tr F6EHT1 F6EHT1_AMYSD	2	Actinobacteria	Actinobacteria	<i>Amycolicoccus subflavus</i>
tr D5UQ87 D5UQ87_TSUPD	2	Actinobacteria	Actinobacteria	<i>Tsukamurella paurometabola</i>
tr E9UWC8 E9UWC8_9ACTO	2	Actinobacteria	Actinobacteria	<i>Nocardioideae bacterium Broad-1</i>

tr T5IB76 T5IB76_RHOER	2	Actinobacteria	Actinobacteria	Rhodococcus erythropolis
tr A0A0B2BME5 A0A0B2BME5_9ACTO	2	Actinobacteria	Actinobacteria	Mumia flava
tr A0A0B8N9A0 A0A0B8N9A0_9NOCA	2	Actinobacteria	Actinobacteria	Nocardia seriolae
tr Q5YWK4 Q5YWK4_NOCFA	2	Actinobacteria	Actinobacteria	Nocardia farcinica
tr W5TFE2 W5TFE2_9NOCA	2	Actinobacteria	Actinobacteria	Nocardia nova
tr A0A022LN77 A0A022LN77_9ACTO	2	Actinobacteria	Actinobacteria	Dietzia sp. UCD-THP
tr R7XXX0 R7XXX0_9ACTO	2	Actinobacteria	Actinobacteria	Nocardioides sp. CF8
tr F6EN33 F6EN33_AMYSD	2	Actinobacteria	Actinobacteria	Amycolobicoccus subflavus
tr G7GUZ4 G7GUZ4_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia amarae
tr E9V0Z2 E9V0Z2_9ACTO	2	Actinobacteria	Actinobacteria	Nocardioideaceae bacterium Broad-1
tr H5X8F8 H5X8F8_9PSEU	2	Actinobacteria	Actinobacteria	Saccharomonospora marina
tr W8HDM9 W8HDM9_RHOOP	2	Actinobacteria	Actinobacteria	Rhodococcus opacus
tr W5TAK2 W5TAK2_9NOCA	2	Actinobacteria	Actinobacteria	Nocardia nova
tr A0A076N1G7 A0A076N1G7_AMYME	2	Actinobacteria	Actinobacteria	Amycolatopsis methanolica
tr M0QIR0 M0QIR0_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia soli
tr A0A0B2Y2J3 A0A0B2Y2J3_9MYCO	2	Actinobacteria	Actinobacteria	Mycobacterium setense
tr A1TCM7 A1TCM7_MYCVP	2	Actinobacteria	Actinobacteria	Mycobacterium vanbaalenii
tr W5WJM9 W5WJM9_9PSEU	2	Actinobacteria	Actinobacteria	Kutzneria albida
tr L7KN85 L7KN85_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia aichiensis
tr L7L6G7 L7L6G7_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia hirsuta
tr L7LN06 L7LN06_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia sihwensis
tr X8A4N1 X8A4N1_MYCAV	2	Actinobacteria	Actinobacteria	Mycobacterium avium
tr L7KHC4 L7KHC4_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia aichiensis
tr X7YA39 X7YA39_MYCKA	2	Actinobacteria	Actinobacteria	Mycobacterium kansasii
tr R4MIZ7 R4MIZ7_MYCTX	2	Actinobacteria	Actinobacteria	Mycobacterium tuberculosis
tr X0QWU6 X0QWU6_9NOCA	2	Actinobacteria	Actinobacteria	Rhodococcus wratislaviensis
tr G8RXD4 G8RXD4_MYCRN	2	Actinobacteria	Actinobacteria	Mycobacterium rhodesiae

tr Q8VKQ6 Q8VKQ6_MYCTO	2	Actinobacteria	Actinobacteria	Mycobacterium tuberculosis
tr H5TQ33 H5TQ33_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia otitidis
tr L0INV5 L0INV5_MYCSM	2	Actinobacteria	Actinobacteria	Mycobacterium smegmatis
tr L8DA64 L8DA64_9NOCA	2	Actinobacteria	Actinobacteria	Rhodococcus sp. AW25M09
tr G7GSR6 G7GSR6_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia amarae
tr K5BIM6 K5BIM6_9MYCO	2	Actinobacteria	Actinobacteria	Mycobacterium hassiacum
tr C1B001 C1B001_RHOOB	2	Actinobacteria	Actinobacteria	Rhodococcus opacus
tr M2XHC6 M2XHC6_9NOCA	2	Actinobacteria	Actinobacteria	Rhodococcus triatomae
tr H5X5Q5 H5X5Q5_9PSEU	2	Actinobacteria	Actinobacteria	Saccharomonospora marina
tr H6RAR5 H6RAR5_NOCCG	2	Actinobacteria	Actinobacteria	Nocardia cyriacigeorgica
tr A0A0A1DSN4 A0A0A1DSN4_NOCSI	2	Actinobacteria	Actinobacteria	Pimelobacter simplex
tr M0QMW8 M0QMW8_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia soli
tr K0V4J6 K0V4J6_MYCFO	2	Actinobacteria	Actinobacteria	Mycobacterium fortuitum
tr E2S871 E2S871_9ACTO	2	Actinobacteria	Actinobacteria	Aeromicrobium marinum
tr G7GP47 G7GP47_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia amarae
tr H0R660 H0R660_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia effusa
tr X7Y291 X7Y291_MYCKA	2	Actinobacteria	Actinobacteria	Mycobacterium kansasii
tr U0EPN6 U0EPN6_9NOCA	2	Actinobacteria	Actinobacteria	Rhodococcus sp. P27
tr M2WUF8 M2WUF8_9NOCA	2	Actinobacteria	Actinobacteria	Rhodococcus triatomae
tr I0PGT7 I0PGT7_MYCAB	2	Actinobacteria	Actinobacteria	Mycobacterium abscessus
tr H6R1K7 H6R1K7_NOCCG	2	Actinobacteria	Actinobacteria	Nocardia cyriacigeorgica
tr K0UZ20 K0UZ20_MYCVA	2	Actinobacteria	Actinobacteria	Mycobacterium vaccae
tr F5YUN8 F5YUN8_MYCSD	2	Actinobacteria	Actinobacteria	Mycobacterium sp. JDM601
tr G7GTS9 G7GTS9_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia amarae
tr D0L6Z9 D0L6Z9_GORB4	2	Actinobacteria	Actinobacteria	Gordonia bronchialis
tr F4CXJ3 F4CXJ3_PSEUX	2	Actinobacteria	Actinobacteria	Pseudonocardia dioxanivorans
tr X8CVC8 X8CVC8_MYCIT	12	Actinobacteria	Actinobacteria	Mycobacterium intracellulare

tr E9V1A0 E9V1A0_9ACTO	2	Actinobacteria	Actinobacteria	Nocardioideae bacterium Broad-1
tr K6XI89 K6XI89_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia namibiensis
tr W5WIN9 W5WIN9_9PSEU	2	Actinobacteria	Actinobacteria	Kutzneria albida
tr D1A3J0 D1A3J0_THECD	2	Actinobacteria	Actinobacteria	Thermomonospora curvata
tr R6ABR7 R6ABR7_9PROT	1	Proteobacteria		Proteobacteria bacterium CAG:139
tr R6ACY1 R6ACY1_9PROT	1	Proteobacteria		Proteobacteria bacterium CAG:139
tr C1DCY3 C1DCY3_LARHH	1	Proteobacteria	Betaproteobacteria	Laribacter hongkongensis
tr X7R9Z9 X7R9Z9_VIBPH	1	Proteobacteria	Gammaproteobacteria	Vibrio parahaemolyticus
tr W9VAF1 W9VAF1_9GAMM	1	Proteobacteria	Gammaproteobacteria	Thiorhodococcus sp. AK35
tr W0DNQ7 W0DNQ7_9GAMM	1	Proteobacteria	Gammaproteobacteria	Thioalkalivibrio thiocyanoxidans
tr C0QIN1 C0QIN1_DESAH	1	Proteobacteria	Deltaproteobacteria	Desulfobacterium autotrophicum
tr N1WBP2 N1WBP2_9LEPT	1	Spirochaetes	Spirochaetia	Leptospira vanthielii
tr H1G2K8 H1G2K8_9GAMM	1	Proteobacteria	Gammaproteobacteria	Ectothiorhodospira sp. PHS-1
tr A0A066PRJ9 A0A066PRJ9_9PROT	1	Proteobacteria	Alphaproteobacteria	Acidiphilium sp. JA12-A1
tr G4E6M2 G4E6M2_9GAMM	1	Proteobacteria	Gammaproteobacteria	Thiorhodospira sibirica
tr A4SXS4 A4SXS4_POLSQ	1	Proteobacteria	Betaproteobacteria	Polynucleobacter necessarius
tr B9XQZ7 B9XQZ7_PEDPL	1	Verrucomicrobia	Verrucomicrobiae	Pedosphaera parvula
tr F0JL42 F0JL42_DESDE	1	Proteobacteria	Deltaproteobacteria	Desulfovibrio desulfuricans
tr Q1NX33 Q1NX33_9DELT	1	Proteobacteria	Deltaproteobacteria	delta proteobacterium MLMS-1
tr F3Z0E1 F3Z0E1_DESAF	1	Proteobacteria	Deltaproteobacteria	Desulfovibrio africanus
tr C6C1P5 C6C1P5_DESAD	1	Proteobacteria	Deltaproteobacteria	Desulfovibrio salexigens
tr H0A0J8 H0A0J8_9PROT	1	Proteobacteria	Alphaproteobacteria	Acetobacteraceae bacterium AT-5844
tr K1Z964 K1Z964_9BACT	1			uncultured bacterium
tr A0A0B0EB06 A0A0B0EB06_9BACT	1	Planctomycetes	Planctomycetia	Candidatus Scalindua brodae
tr K0NPF9 K0NPF9_DESTT	1	Proteobacteria	Deltaproteobacteria	Desulfobacula toluolica
tr I5B7B9 I5B7B9_9DELT	1	Proteobacteria	Deltaproteobacteria	Desulfobacter postgatei
tr D5H5N7 D5H5N7_SALRM	1	Bacteroidetes		Salinibacter ruber

tr Q3A0X1 Q3A0X1_PELCD	1	Proteobacteria	Deltaproteobacteria	Pelobacter carbinolicus
tr X0XD94 X0XD94_9ZZZZ	1			marine sediment metagenome
tr Q5NTF0 Q5NTF0_9BACT	1			uncultured bacterium
tr S0G044 S0G044_9DELT	1	Proteobacteria	Deltaproteobacteria	Desulfotignum phosphitoxidans
tr I6B3M6 I6B3M6_9BACT	1	Verrucomicrobia	Opitutae	Opitutaceae bacterium TAV1
tr A0A066TEL1 A0A066TEL1_9GAMM	1	Proteobacteria	Gammaproteobacteria	Gilliamella apicola
tr U1KNB8 U1KNB8_9GAMM	1	Proteobacteria	Gammaproteobacteria	Pseudoalteromonas citrea
tr H5T8I0 H5T8I0_9ALTE	1	Proteobacteria	Gammaproteobacteria	Glaciecola punicea
tr T1CNB6 T1CNB6_9ZZZZ	1			mine drainage metagenome
tr R5XY65 R5XY65_9PROT	1	Proteobacteria	Alphaproteobacteria	Acetobacter sp. CAG:267
tr W6KJD9 W6KJD9_9PROT	1	Proteobacteria	Alphaproteobacteria	Magnetospira sp. QH-2
tr C6V519 C6V519_NEORI	1	Proteobacteria	Alphaproteobacteria	Neorickettsia risticii
tr H6SP71 H6SP71_RHOPH	1	Proteobacteria	Alphaproteobacteria	Rhodospirillum photometricum
tr A0A076ECD6 A0A076ECD6_RHOOP	1	Actinobacteria	Actinobacteria	Rhodococcus opacus
tr A0A0B8N996 A0A0B8N996_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia seriolae
tr V5XHK3 V5XHK3_MYCNE	1	Actinobacteria	Actinobacteria	Mycobacterium neoaurum
tr M0QIQ5 M0QIQ5_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia soli
tr E6JDS4 E6JDS4_9ACTO	1	Actinobacteria	Actinobacteria	Dietzia cinnamea
tr J5E3K3 J5E3K3_9MYCO	2	Actinobacteria	Actinobacteria	Mycobacterium colombiense
tr W8HDM4 W8HDM4_RHOOP	1	Actinobacteria	Actinobacteria	Rhodococcus opacus
tr A0A024K3A8 A0A024K3A8_9MYCO	1	Actinobacteria	Actinobacteria	Mycobacterium triplex
tr G7CJW9 G7CJW9_MYCTH	1	Actinobacteria	Actinobacteria	Mycobacterium thermoresistibile
tr Q7D9K7 Q7D9K7_MYCTO	1	Actinobacteria	Actinobacteria	Mycobacterium tuberculosis
tr G7GUZ9 G7GUZ9_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr W5TFD9 W5TFD9_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia nova
tr A0A076N1F8 A0A076N1F8_9AMYME	2	Actinobacteria	Actinobacteria	Amycolatopsis methanolica
tr X8A2N5 X8A2N5_MYCAV	1	Actinobacteria	Actinobacteria	Mycobacterium avium

tr X8AE45 X8AE45_MYCAV	2	Actinobacteria	Actinobacteria	Mycobacterium avium
tr L7L6H6 L7L6H6_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia hirsuta
tr U5ECA5 U5ECA5_NOCAS	1	Actinobacteria	Actinobacteria	Nocardia asteroides
tr G7GKG8 G7GKG8_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr G7H1J2 G7H1J2_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia araii
tr V5X6N2 V5X6N2_MYCNE	1	Actinobacteria	Actinobacteria	Mycobacterium neoaurum
tr I0WL21 I0WL21_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus imtechensis
tr W5WJM4 W5WJM4_9PSEU	1	Actinobacteria	Actinobacteria	Kutzneria albida
tr E9V0Y7 E9V0Y7_9ACTO	1	Actinobacteria	Actinobacteria	Nocardioideaceae bacterium Broad-1
tr D1A398 D1A398_THECD	1	Actinobacteria	Actinobacteria	Thermomonospora curvata
tr R7Y399 R7Y399_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia terrae
tr E2S876 E2S876_9ACTO	1	Actinobacteria	Actinobacteria	Aeromicrobium marinum
tr H5TSB2 H5TSB2_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia otitidis
tr W7IML6 W7IML6_9PSEU	1	Actinobacteria	Actinobacteria	Actinokineospora sp. EG49
tr X7YBW9 X7YBW9_MYCKA	1	Actinobacteria	Actinobacteria	Mycobacterium kansasii
tr W7SAJ9 W7SAJ9_9PSEU	1	Actinobacteria	Actinobacteria	Kutzneria sp. 744
tr D2PU98 D2PU98_KRIFD	1	Actinobacteria	Actinobacteria	Kribbella flavida
tr J2K2G4 J2K2G4_9ACTO	1	Actinobacteria	Actinobacteria	Streptomyces auratus
tr D3QB66 D3QB66_STANL	2	Actinobacteria	Actinobacteria	Stackebrandtia nassauensis
tr E6S9N4 E6S9N4_INTC7	1	Actinobacteria	Actinobacteria	Intrasporangium calvum
tr E9UWC3 E9UWC3_9ACTO	1	Actinobacteria	Actinobacteria	Nocardioideaceae bacterium Broad-1
tr A0A0A1DJ20 A0A0A1DJ20_NOCSI	1	Actinobacteria	Actinobacteria	Pimelobacter simplex
tr H6RMU6 H6RMU6_BLASD	2	Actinobacteria	Actinobacteria	Blastococcus saxobsidens
tr D6KCL8 D6KCL8_9ACTO	1	Actinobacteria	Actinobacteria	Streptomyces sp. e14
tr A0A0B2BN83 A0A0B2BN83_9ACTO	1	Actinobacteria	Actinobacteria	Mumia flava
tr M7AA00 M7AA00_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia sp. NB4-1Y
tr A0A0A1DLG3 A0A0A1DLG3_NOCSI	1	Actinobacteria	Actinobacteria	Pimelobacter simplex

tr F6EHT6 F6EHT6_AMYSD	2	Actinobacteria	Actinobacteria	Amycoliticoccus subflavus
tr U0E8H8 U0E8H8_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus sp. P27
tr A0A0C1L1Y7 A0A0C1L1Y7_9PSEU	2	Actinobacteria	Actinobacteria	Prauserella sp. Am3
tr A0A0A1DM07 A0A0A1DM07_NOCSI	1	Actinobacteria	Actinobacteria	Pimelobacter simplex
tr L2T7U8 L2T7U8_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus wratislaviensis
tr E2SGA8 E2SGA8_9ACTO	2	Actinobacteria	Actinobacteria	Aeromicrobium marinum
tr R7XXX5 R7XXX5_9ACTO	2	Actinobacteria	Actinobacteria	Nocardioides sp. CF8
tr L8DA69 L8DA69_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus sp. AW25M09
tr E2SCR0 E2SCR0_9ACTO	1	Actinobacteria	Actinobacteria	Aeromicrobium marinum
tr A0A059MGR1 A0A059MGR1_9NOCA	2	Actinobacteria	Actinobacteria	Rhodococcus sp. BCP1
tr C1B006 C1B006_RHOOB	1	Actinobacteria	Actinobacteria	Rhodococcus opacus
tr C6WH39 C6WH39_ACTMD	1	Actinobacteria	Actinobacteria	Actinosynnema mirum
tr H5X8G3 H5X8G3_9PSEU	1	Actinobacteria	Actinobacteria	Saccharomonospora marina
tr A0A073BDE9 A0A073BDE9_9PSEU	2	Actinobacteria	Actinobacteria	Saccharopolyspora rectivirgula
tr H5X5R0 H5X5R0_9PSEU	1	Actinobacteria	Actinobacteria	Saccharomonospora marina
tr K6VSM1 K6VSM1_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia rhizosphaera
tr L8DGB2 L8DGB2_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus sp. AW25M09
tr E9UWP1 E9UWP1_9ACTO	1	Actinobacteria	Actinobacteria	Nocardioideae bacterium Broad-1
tr A0A0A1FX38 A0A0A1FX38_9MYCO	1	Actinobacteria	Actinobacteria	Mycobacterium sp. VKM Ac-1817D
tr A0A088DHD2 A0A088DHD2_MYCAV	1	Actinobacteria	Actinobacteria	Mycobacterium avium
tr H0R665 H0R665_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr X8DHC4 X8DHC4_MYCAB	1	Actinobacteria	Actinobacteria	Mycobacterium abscessus
tr A0A0B8NJT9 A0A0B8NJT9_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia seriolae
tr M2XN33 M2XN33_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus qingshengii
tr H0R4X2 H0R4X2_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr W5TQG3 W5TQG3_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia nova
tr U5EGV5 U5EGV5_NOCAS	1	Actinobacteria	Actinobacteria	Nocardia asteroides

tr G7GTT4 G7GTT4_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr R4UK58 R4UK58_MYCAB	1	Actinobacteria	Actinobacteria	Mycobacterium abscessus
tr A0A0A1DM34 A0A0A1DM34_NOCSI	1	Actinobacteria	Actinobacteria	Pimelobacter simplex
tr A0A049DP51 A0A049DP51_MYCAV	1	Actinobacteria	Actinobacteria	Mycobacterium avium
tr D5UP37 D5UP37_TSUPD	1	Actinobacteria	Actinobacteria	Tsukamurella paurometabola
tr A0A0B8KPG8 A0A0B8KPG8_MYCPC	1	Actinobacteria	Actinobacteria	Mycobacterium avium
tr A0A0B8NMN5 A0A0B8NMN5_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia seriolae
tr L7KYU3 L7KYU3_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amicalis
tr X8DX53 X8DX53_MYCAB	1	Actinobacteria	Actinobacteria	Mycobacterium abscessus
tr F1YGH6 F1YGH6_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia neofelifaecis
tr G7H7G3 G7H7G3_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia araii
tr U5EFA8 U5EFA8_NOCAS	1	Actinobacteria	Actinobacteria	Nocardia asteroides
tr H0QYR9 H0QYR9_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr A0A062XQ08 A0A062XQ08_9BACT	1	Acidobacteria		Thermoanaerobaculum aquaticum
tr A0A084T2A7 A0A084T2A7_9DELT	1	Proteobacteria	Deltaproteobacteria	Cystobacter violaceus
tr I3IJ79 I3IJ79_9PLAN	1	Planctomycetes	Planctomycetia	planctomycete KSU-1
tr G2LF04 G2LF04_CHLTF	1	Acidobacteria		Candidatus Chloracidobacterium thermophilum
tr A9F8B6 A9F8B6_SORC5	1	Proteobacteria	Deltaproteobacteria	Sorangium cellulosum
tr A0A0B5FRU7 A0A0B5FRU7_9DELT	1	Proteobacteria	Deltaproteobacteria	Geoalkalibacter subterraneus
tr B9M828 B9M828_GEODF	1	Proteobacteria	Deltaproteobacteria	Geobacter daltonii
tr Q1IHY3 Q1IHY3_KORVE	1	Acidobacteria	Acidobacteriia	Candidatus Koribacter versatilis
tr E8V6D1 E8V6D1_TERSS	1	Acidobacteria	Acidobacteriia	Terriglobus saanensis
tr F4C5F7 F4C5F7_SPHS2	1	Bacteroidetes	Sphingobacteriia	Sphingobacterium sp. 21
tr A0A0B6X0V1 A0A0B6X0V1_9BACT	1	Acidobacteria		Pyrinomonas methylaliphatoenes
tr I2GM83 I2GM83_9BACT	1	Bacteroidetes	Cytophagia	Fibrisoma limi
tr Q02BI0 Q02BI0_SOLUE	1	Acidobacteria	Solibacteres	Candidatus Solibacter usitatus
tr L0G5Y2 L0G5Y2_ECHVK	1	Bacteroidetes	Cytophagia	Echinicola vietnamensis

tr I6ZXI2 I6ZXI2_MELRP	1	Ignavibacteriae	Ignavibacteria	Melioribacter roseus
tr Q1PXQ9 Q1PXQ9_9BACT	1	Planctomycetes	Planctomycetia	Candidatus Kuenenia stuttgartiensis
tr U2CPG0 U2CPG0_9BACE	1	Bacteroidetes	Bacteroidia	Bacteroides pyogenes
tr K1ZAX2 K1ZAX2_9BACT	1			uncultured bacterium
tr W5X224 W5X224_BDEBC	1	Proteobacteria	Deltaproteobacteria	Bdellovibrio bacteriovorus
tr A0A098LE12 A0A098LE12_9BACT	1	Bacteroidetes	Cytophagia	Sporocytophaga myxococcoides
tr G8NWH9 G8NWH9_GRAMM	1	Acidobacteria	Acidobacteriia	Granulicella mallensis
tr A0A0A8WWS4 A0A0A8WWS4_9DELT	1	Proteobacteria	Deltaproteobacteria	Geobacter sp. OR-1
tr G8TBV3 G8TBV3_NIAKG	1	Bacteroidetes	Sphingobacteriia	Niastella koreensis
tr J0LBB1 J0LBB1_9BACT	1	Bacteroidetes	Cytophagia	Pontibacter sp. BAB1700
tr F8EIQ2 F8EIQ2_RUNSL	1	Bacteroidetes	Cytophagia	Runella slithyformis
tr H8KQ18 H8KQ18_SOLCM	1	Bacteroidetes	Sphingobacteriia	Solitalea canadensis
tr E6QM46 E6QM46_9ZZZZ	1			mine drainage metagenome
tr C6VWY6 C6VWY6_DYAFD	1	Bacteroidetes	Cytophagia	Dyadobacter fermentans
tr A0A066WL26 A0A066WL26_9FLAO	1	Bacteroidetes	Flavobacteriia	Flavobacterium sp. EM1321
tr Q11QT9 Q11QT9_CYTH3	1	Bacteroidetes	Cytophagia	Cytophaga hutchinsonii
tr H1YG72 H1YG72_9SPHI	1	Bacteroidetes	Sphingobacteriia	Mucilaginibacter paludis
tr A0A0C1U0Z5 A0A0C1U0Z5_9CYAN	1	Cyanobacteria		Hassallia byssoidea
tr G8TB64 G8TB64_NIAKG	1	Bacteroidetes	Sphingobacteriia	Niastella koreensis
tr I4C8D1 I4C8D1_DESTA	1	Proteobacteria	Deltaproteobacteria	Desulfomonile tiedjei
tr B9XI42 B9XI42_PEDPL	1	Verrucomicrobia	Verrucomicrobiae	Pedosphaera parvula
tr D7VTS5 D7VTS5_9SPHI	1	Bacteroidetes	Sphingobacteriia	Sphingobacterium spiritivorum
tr A0A083WVJ2 A0A083WVJ2_9FLAO	1	Bacteroidetes	Flavobacteriia	Chryseobacterium antarcticum
tr H1XU60 H1XU60_9BACT	1			Caldithrix abyssii
tr C7PRY9 C7PRY9_CHIPD	1	Bacteroidetes	Sphingobacteriia	Chitinophaga pinensis
tr I0AH89 I0AH89_IGNAJ	1	Ignavibacteriae	Ignavibacteria	Ignavibacterium album
tr I6ZZU2 I6ZZU2_MELRP	1	Ignavibacteriae	Ignavibacteria	Melioribacter roseus

tr J9ZBK3 J9ZBK3_LEPFM	1	Nitrospirae	Nitrospira	Leptospirillum ferriphilum
tr C0INF9 C0INF9_9BACT	1			uncultured bacterium BLR12
tr F4L5C0 F4L5C0_HALH1	1	Bacteroidetes	Sphingobacteriia	Haliscomenobacter hydrossis
tr G2SGS9 G2SGS9_RHOMR	1	Bacteroidetes		Rhodothermus marinus
tr Q01T55 Q01T55_SOLUE	1	Acidobacteria	Solibacteres	Candidatus Solibacter usitatus
tr A5FBV3 A5FBV3_FLAJ1	1	Bacteroidetes	Flavobacteriia	Flavobacterium johnsoniae
tr A0A085EHM6 A0A085EHM6_9FLAO	1	Bacteroidetes	Flavobacteriia	Flavobacterium sp. EM1308
tr W0RKP5 W0RKP5_9BACT	1	Gemmatimonadetes	Gemmatimonadetes	Gemmatimonadetes bacterium KBS708
tr H2BUH3 H2BUH3_9FLAO	1	Bacteroidetes	Flavobacteriia	Gillisia limnaea
tr A0A062XY82 A0A062XY82_9BACT	1	Acidobacteria		Thermoanaerobaculum aquaticum
tr B3ELU9 B3ELU9_CHLPB	1	Chlorobi	Chlorobia	Chlorobium phaeobacteroides
tr W8F729 W8F729_9BACT	1	Bacteroidetes	Cytophagia	Hymenobacter swuensis
tr M7NHF3 M7NHF3_9BACT	1	Bacteroidetes	Cytophagia	Cesiribacter andamanensis
tr C7PSE8 C7PSE8_CHIPD	1	Bacteroidetes	Sphingobacteriia	Chitinophaga pinensis
tr F0S3N0 F0S3N0_DESTD	1	Aquificae	Aquificae	Desulfurobacterium thermolithotrophum
tr C1DTQ3 C1DTQ3_SULAA	1	Aquificae	Aquificae	Sulfurihydrogenibium azorense
tr A6ECD4 A6ECD4_9SPHI	1	Bacteroidetes	Sphingobacteriia	Pedobacter sp. BAL39
tr B4U8R4 B4U8R4_HYDS0	1	Aquificae	Aquificae	Hydrogenobaculum sp. Y04AAS1
tr A0A0C1KVI4 A0A0C1KVI4_9SPHI	1	Bacteroidetes	Sphingobacteriia	Flaviumibacter sp. ZG627
tr G2DDR7 G2DDR7_9GAMM	1	Proteobacteria	Gammaproteobacteria	endosymbiont of Riftia pachyptila
tr G4WVV9 G4WVV9_9BACT	18			uncultured bacterium CSLD10
tr M7XAT5 M7XAT5_9BACT	1	Bacteroidetes	Cytophagia	Mariniradius saccharolyticus
tr A0A0C1KRV9 A0A0C1KRV9_9SPHI	1	Bacteroidetes	Sphingobacteriia	Flaviumibacter sp. ZG627
tr A0LL26 A0LL26_SYNFM	1	Proteobacteria	Deltaproteobacteria	Syntrophobacter fumaroxidans
tr A0A099TQ66 A0A099TQ66_9HELI	1	Proteobacteria	Epsilonproteobacteria	Helicobacter sp. MIT 11-5569
tr V8CB90 V8CB90_9HELI	1	Proteobacteria	Epsilonproteobacteria	Helicobacter macacae
tr D3UJD6 D3UJD6_HELM1	1	Proteobacteria	Epsilonproteobacteria	Helicobacter mustelae

tr A0A0B2EM49 A0A0B2EM49_HELPX	1	Proteobacteria	Epsilonproteobacteria	<i>Helicobacter pylori</i>
tr T1CYV8 T1CYV8_9HELI	1	Proteobacteria	Epsilonproteobacteria	<i>Helicobacter fennelliae</i>
tr A0A099VAL0 A0A099VAL0_9HELI	1	Proteobacteria	Epsilonproteobacteria	<i>Helicobacter trogontum</i>
tr M2YFM5 M2YFM5_9PSEU	2	Actinobacteria	Actinobacteria	<i>Amycolatopsis decaplanina</i>
tr F3ZJE5 F3ZJE5_9ACTO	2	Actinobacteria	Actinobacteria	<i>Streptomyces</i> sp. Tu6071
tr E2PY84 E2PY84_STRC2	1	Actinobacteria	Actinobacteria	<i>Streptomyces clavuligerus</i>
tr A0A066Y802 A0A066Y802_9ACTO	2	Actinobacteria	Actinobacteria	<i>Streptomyces olindensis</i>
tr H6RMU7 H6RMU7_BLASD	2	Actinobacteria	Actinobacteria	<i>Blastococcus saxobsidens</i>
tr D1A399 D1A399_THECD	2	Actinobacteria	Actinobacteria	<i>Thermomonospora curvata</i>
tr D2PU99 D2PU99_KRIFD	2	Actinobacteria	Actinobacteria	<i>Kribbella flavida</i>
tr E2SGA9 E2SGA9_9ACTO	1	Actinobacteria	Actinobacteria	<i>Aeromicrobium marinum</i>
tr A0A0A1DGK3 A0A0A1DGK3_NOCSI	2	Actinobacteria	Actinobacteria	<i>Pimelobacter simplex</i>
tr V9XBJ1 V9XBJ1_9NOCA	2	Actinobacteria	Actinobacteria	<i>Rhodococcus pyridinivorans</i>
tr A1SKI7 A1SKI7_NOCSJ	1	Actinobacteria	Actinobacteria	<i>Nocardioides</i> sp. JS614
tr F6EHT5 F6EHT5_AMYSD	2	Actinobacteria	Actinobacteria	<i>Amycolicococcus subflavus</i>
tr A0A022LT29 A0A022LT29_9ACTO	2	Actinobacteria	Actinobacteria	<i>Dietzia</i> sp. UCD-THP
tr D5UQ83 D5UQ83_TSUPD	2	Actinobacteria	Actinobacteria	<i>Tsukamurella paurometabola</i>
tr E9UWC4 E9UWC4_9ACTO	1	Actinobacteria	Actinobacteria	<i>Nocardioideae bacterium Broad-1</i>
tr R7Y156 R7Y156_9ACTO	1	Actinobacteria	Actinobacteria	<i>Nocardioides</i> sp. CF8
tr D3QB65 D3QB65_STANL	2	Actinobacteria	Actinobacteria	<i>Stackebrandtia nassauensis</i>
tr C1BDE9 C1BDE9_RHOOB	2	Actinobacteria	Actinobacteria	<i>Rhodococcus opacus</i>
tr T5HZF3 T5HZF3_RHOER	1	Actinobacteria	Actinobacteria	<i>Rhodococcus erythropolis</i>
tr H5X8G2 H5X8G2_9PSEU	2	Actinobacteria	Actinobacteria	<i>Saccharomonospora marina</i>
tr E2SEJ6 E2SEJ6_9ACTO	1	Actinobacteria	Actinobacteria	<i>Aeromicrobium marinum</i>
tr G7GQS7 G7GQS7_9ACTO	1	Actinobacteria	Actinobacteria	<i>Gordonia amarae</i>
tr E2S875 E2S875_9ACTO	1	Actinobacteria	Actinobacteria	<i>Aeromicrobium marinum</i>
tr A0R1K5 A0R1K5_MYCS2	2	Actinobacteria	Actinobacteria	<i>Mycobacterium smegmatis</i>

tr M2XH03 M2XH03_9NOCA	2	Actinobacteria	Actinobacteria	Rhodococcus triatomae
tr R7XXR3 R7XXR3_9ACTO	2	Actinobacteria	Actinobacteria	Nocardioides sp. CF8
tr E6JDS5 E6JDS5_9ACTO	1	Actinobacteria	Actinobacteria	Dietzia cinnamea
tr L7KG85 L7KG85_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia aichiensis
tr F8B413 F8B413_FRADG	2	Actinobacteria	Actinobacteria	Frankia symbiont of Datisca glomerata
tr A0A076N0Q6 A0A076N0Q6_AMYME	1	Actinobacteria	Actinobacteria	Amycolatopsis methanolica
tr A0A076EAH3 A0A076EAH3_RHOOP	1	Actinobacteria	Actinobacteria	Rhodococcus opacus
tr E9V0Y8 E9V0Y8_9ACTO	1	Actinobacteria	Actinobacteria	Nocardioideaceae bacterium Broad-1
tr A0A051UJJ6 A0A051UJJ6_MYCTX	2	Actinobacteria	Actinobacteria	Mycobacterium tuberculosis
tr V7JUV1 V7JUV1_MYCPC	2	Actinobacteria	Actinobacteria	Mycobacterium avium
tr I7FLI0 I7FLI0_MYCS2	1	Actinobacteria	Actinobacteria	Mycobacterium smegmatis
tr L7KCE3 L7KCE3_GORRU	2	Actinobacteria	Actinobacteria	Gordonia rubripertincta
tr A0QMJ3 A0QMJ3_MYCA1	1	Actinobacteria	Actinobacteria	Mycobacterium avium
tr G7GKE5 G7GKE5_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia amarae
tr G7GSR2 G7GSR2_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr A0A0A1DJ08 A0A0A1DJ08_NOCSI	1	Actinobacteria	Actinobacteria	Pimelobacter simplex
tr M0QIE3 M0QIE3_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia soli
tr A0A0A1DPF3 A0A0A1DPF3_NOCSI	1	Actinobacteria	Actinobacteria	Pimelobacter simplex
tr H5X5Q9 H5X5Q9_9PSEU	2	Actinobacteria	Actinobacteria	Saccharomonospora marina
tr V8CVU7 V8CVU7_9ACTO	1	Actinobacteria	Actinobacteria	Williamsia sp. D3
tr E9UWP2 E9UWP2_9ACTO	2	Actinobacteria	Actinobacteria	Nocardioideaceae bacterium Broad-1
tr W5TBZ3 W5TBZ3_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia nova
tr H0R664 H0R664_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr H6R4G2 H6R4G2_NOCCG	1	Actinobacteria	Actinobacteria	Nocardia cyriacigeorgica
tr E2SCQ9 E2SCQ9_9ACTO	1	Actinobacteria	Actinobacteria	Aeromicrobium marinum
tr W5TF23 W5TF23_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia nova
tr Q0S3I4 Q0S3I4_RHOJR	2	Actinobacteria	Actinobacteria	Rhodococcus jostii

tr A0A0B8NHK4 A0A0B8NHK4_9NOCA	2	Actinobacteria	Actinobacteria	Nocardia seriolae
tr A0A0C2VT22 A0A0C2VT22_RHOER	2	Actinobacteria	Actinobacteria	Rhodococcus erythropolis
tr W5TJG0 W5TJG0_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia nova
tr A0A088DKD4 A0A088DKD4_MYCAV	1	Actinobacteria	Actinobacteria	Mycobacterium avium
tr L8DBZ0 L8DBZ0_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus sp. AW25M09
tr A0A073B2F2 A0A073B2F2_9PSEU	2	Actinobacteria	Actinobacteria	Saccharopolyspora rectivirgula
tr G7GTT3 G7GTT3_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr M2VE22 M2VE22_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus triatomae
tr H5U070 H5U070_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia sputi
tr K6XRH0 K6XRH0_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia namibiensis
tr F5Z0C0 F5Z0C0_MYCSD	1	Actinobacteria	Actinobacteria	Mycobacterium sp. JDM601
tr X8EUF9 X8EUF9_MYCCH	1	Actinobacteria	Actinobacteria	Mycobacterium chelonae
tr L8DK68 L8DK68_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus sp. AW25M09
tr H0QWF8 H0QWF8_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr D5UP36 D5UP36_TSUPD	1	Actinobacteria	Actinobacteria	Tsukamurella paurometabola
tr X8AND8 X8AND8_MYCAV	6	Actinobacteria	Actinobacteria	Mycobacterium avium
tr D5UYS0 D5UYS0_TSUPD	1	Actinobacteria	Actinobacteria	Tsukamurella paurometabola
tr H6MXF1 H6MXF1_GORPV	1	Actinobacteria	Actinobacteria	Gordonia polyisoprenivorans
tr D5UW65 D5UW65_TSUPD	1	Actinobacteria	Actinobacteria	Tsukamurella paurometabola
tr K6VQS7 K6VQS7_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia namibiensis
tr H5UAB4 H5UAB4_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia terrae
tr F6EN11 F6EN11_AMYSD	1	Actinobacteria	Actinobacteria	Amycolicoccus subflavus
tr L7KVP1 L7KVP1_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amicalis
tr K5B990 K5B990_9MYCO	1	Actinobacteria	Actinobacteria	Mycobacterium hassiacum
tr R7XXT4 R7XXT4_9ACTO	1	Actinobacteria	Actinobacteria	Nocardioides sp. CF8
tr L7LAC8 L7LAC8_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia hirsuta
tr R7XYT4 R7XYT4_9ACTO	1	Actinobacteria	Actinobacteria	Nocardioides sp. CF8

tr X8CS24 X8CS24_MYCIT	12	Actinobacteria	Actinobacteria	Mycobacterium intracellulare
tr A0A098BQC5 A0A098BQC5_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus ruber
tr E9V0Z1 E9V0Z1_9ACTO	1	Actinobacteria	Actinobacteria	Nocardioideae bacterium Broad-1
tr H0QWP0 H0QWP0_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr A0A076MVD4 A0A076MVD4_AMYME	1	Actinobacteria	Actinobacteria	Amycolatopsis methanolica
tr R7Y2Z7 R7Y2Z7_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia terrae
tr H0RGF2 H0RGF2_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia polyisoprenivorans
tr I0PGQ2 I0PGQ2_MYCAB	1	Actinobacteria	Actinobacteria	Mycobacterium abscessus
tr D2B9V7 D2B9V7_STRRD	1	Actinobacteria	Actinobacteria	Streptosporangium roseum
tr G7GP52 G7GP52_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia amarae
tr L7KU47 L7KU47_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amicalis
tr H5X5Q6 H5X5Q6_9PSEU	1	Actinobacteria	Actinobacteria	Saccharomonospora marina
tr W5TGX9 W5TGX9_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia nova
tr G7GP48 G7GP48_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr Q5YVH2 Q5YVH2_NOCEA	1	Actinobacteria	Actinobacteria	Nocardia farcinica
tr W7STV8 W7STV8_9PSEU	1	Actinobacteria	Actinobacteria	Kutzneria sp. 744
tr F5Z0B7 F5Z0B7_MYCSD	1	Actinobacteria	Actinobacteria	Mycobacterium sp. JDM601
tr D3QB62 D3QB62_STANL	1	Actinobacteria	Actinobacteria	Stackebrandtia nassauensis
tr K0EUQ9 K0EUQ9_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia brasiliensis
tr H0RG52 H0RG52_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia polyisoprenivorans
tr A0A076MRM1 A0A076MRM1_AMYME	1	Actinobacteria	Actinobacteria	Amycolatopsis methanolica
tr H6MXF4 H6MXF4_GORPV	1	Actinobacteria	Actinobacteria	Gordonia polyisoprenivorans
tr R4LVY7 R4LVY7_MYCTX	6	Actinobacteria	Actinobacteria	Mycobacterium tuberculosis
tr G8RXW6 G8RXW6_MYCRN	1	Actinobacteria	Actinobacteria	Mycobacterium rhodesiae
tr Q0S3I6 Q0S3I6_RHOJR	6	Actinobacteria	Actinobacteria	Rhodococcus jostii
tr H6R8W6 H6R8W6_NOCCG	1	Actinobacteria	Actinobacteria	Nocardia cyriacigeorgica
tr H0ITI3 H0ITI3_MYCAB	1	Actinobacteria	Actinobacteria	Mycobacterium abscessus

tr V2PWJ5 V2PWJ5_9BACT	1	Deferribacteres	Deferribacteres	Mucispirillum schaedleri
tr D3PEB4 D3PEB4_DEFDS	1	Deferribacteres	Deferribacteres	Deferribacter desulfuricans
tr A0A068JLF4 A0A068JLF4_9DELT	1	Proteobacteria	Deltaproteobacteria	Desulfonatronum thiodismutans
tr B3E1S0 B3E1S0_GEOLS	1	Proteobacteria	Deltaproteobacteria	Geobacter lovleyi
tr A5GF79 A5GF79_GEOUR	1	Proteobacteria	Deltaproteobacteria	Geobacter uraniireducens
tr D5CSN6 D5CSN6_SIDLE	1	Proteobacteria	Betaproteobacteria	Sideroxydans lithotrophicus
tr B5YHU7 B5YHU7_THEYD	1	Nitrospirae	Nitrospira	Thermodesulfovibrio yellowstonii
tr A0A099UEX8 A0A099UEX8_9HELI	1	Proteobacteria	Epsilonproteobacteria	Helicobacter typhlonius
tr K1YVS7 K1YVS7_9BACT	1			uncultured bacterium
tr M4VAD6 M4VAD6_9DELT	1	Proteobacteria	Deltaproteobacteria	Bdellovibrio exovorus
tr D4H824 D4H824_DENA2	1	Deferribacteres	Deferribacteres	Denitrovibrio acetiphilus
tr H8N0I9 H8N0I9_CORCM	1	Proteobacteria	Deltaproteobacteria	Coralloccoccus coralloides
tr T0RH11 T0RH11_9DELT	1	Proteobacteria	Deltaproteobacteria	Bacteriovorax sp. Seq25_V
tr E6W1R4 E6W1R4_DESIS	1	Chrysiogenetes	Chrysiogenetes	Desulfurispirillum indicum
tr D0LYW5 D0LYW5_HALO1	1	Proteobacteria	Deltaproteobacteria	Haliangium ochraceum
tr S4Y647 S4Y647_SORCE	1	Proteobacteria	Deltaproteobacteria	Sorangium cellulosum
tr Q7MS05 Q7MS05_WOLSU	1	Proteobacteria	Epsilonproteobacteria	Wolinella succinogenes
tr A6Q4N4 A6Q4N4_NITSB	1	Proteobacteria	Epsilonproteobacteria	Nitratiruptor sp. SB155-2
tr K2AF75 K2AF75_9BACT	1			uncultured bacterium
tr K7S285 K7S285_9HELI	1	Proteobacteria	Epsilonproteobacteria	Candidatus Sulfuricurvum sp. RIFRC-1
tr A0A017TC91 A0A017TC91_9DELT	1	Proteobacteria	Deltaproteobacteria	Chondromyces apiculatus
tr F5YBC2 F5YBC2_TREAZ	1	Spirochaetes	Spirochaetia	Treponema azotonutricium
tr A6DA65 A6DA65_9PROT	1	Proteobacteria	Epsilonproteobacteria	Caminibacter mediatlanticus
tr A0A094WAV2 A0A094WAV2_9BACT	1	Nitrospirae	Nitrospira	Leptospirillum ferriphilum
tr F8F156 F8F156_TRECH	1	Spirochaetes	Spirochaetia	Treponema caldaria
tr V2QE64 V2QE64_9BACT	1	Deferribacteres	Deferribacteres	Mucispirillum schaedleri
tr C0QRE9 C0QRE9_PERMH	1	Aquificae	Aquificae	Persephonella marina

tr A7HBT5 A7HBT5_ANADF	1	Proteobacteria	Deltaproteobacteria	Anaeromyxobacter sp. Fw109-5
tr A0A0C2ZVP4 A0A0C2ZVP4_9HELI	1	Proteobacteria	Epsilonproteobacteria	Sulfuricurvum sp. PC08-66
tr U2HVI4 U2HVI4_9SPHI	1	Bacteroidetes	Sphingobacteriia	Sphingobacterium paucimobilis
tr C1AA19 C1AA19_GEMAT	1	Gemmatimonadetes	Gemmatimonadetes	Gemmatimonas aurantiaca
tr E1R9E4 E1R9E4_SPISS	1	Spirochaetes	Spirochaetia	Spirochaeta smaragdinae
tr J0L7H8 J0L7H8_9HELI	1	Proteobacteria	Epsilonproteobacteria	Thiovulum sp. ES
tr A0A0C2YZI5 A0A0C2YZI5_9PROT	1	Proteobacteria	Epsilonproteobacteria	Sulfurovum sp. AS07-7
tr A0A075KNH8 A0A075KNH8_9FIRM	1	Firmicutes	Negativicutes	Pelosinus sp. UFO1
tr Q0EZD4 Q0EZD4_9PROT	1	Proteobacteria	Zetaproteobacteria	Mariprofundus ferrooxydans
tr K4IK87 K4IK87_PSYTT	1	Bacteroidetes	Flavobacteriia	Psychroflexus torquis
tr E4T8S3 E4T8S3_PALPW	1	Bacteroidetes	Bacteroidia	Paludibacter propionicigenes
tr A0A078TMF9 A0A078TMF9_9PORP	1	Bacteroidetes	Bacteroidia	Parabacteroides distasonis
tr V6DIG3 V6DIG3_9DELT	1	Proteobacteria	Deltaproteobacteria	Candidatus Babela massiliensis
tr H3KA77 H3KA77_9FIRM	1	Firmicutes	Negativicutes	Megamonas funiformis
tr K2DP81 K2DP81_9BACT	1			uncultured bacterium
tr W0SHT2 W0SHT2_9RHO0	1	Proteobacteria	Betaproteobacteria	Sulfuritalea hydrogenivorans
tr B3U4T4 B3U4T4_9BACT	1	Nitrospirae	Nitrospira	Candidatus Nitrospira defluvii
tr C6I0D1 C6I0D1_9BACT	1	Nitrospirae	Nitrospira	Leptospirillum ferrodiazotrophum
tr J3CHC9 J3CHC9_9FLAO	1	Bacteroidetes	Flavobacteriia	Chryseobacterium sp. CF314
tr R5W525 R5W525_9BACT	1	Bacteroidetes	Bacteroidia	Alistipes sp. CAG:53
tr H9UKN8 H9UKN8_SPIAZ	1	Spirochaetes	Spirochaetia	Spirochaeta africana
tr A0A085B811 A0A085B811_9FLAO	1	Bacteroidetes	Flavobacteriia	Epilithonimonas lactis
tr W6M797 W6M797_9GAMM	1	Proteobacteria	Gammaproteobacteria	Candidatus Contendobacter odensis
tr A6G1B9 A6G1B9_9DELT	6	Proteobacteria	Deltaproteobacteria	Plesiocystis pacifica
tr D9PM45 D9PM45_9ZZZZ	1			sediment metagenome
tr K1LKK0 K1LKK0_9BACT	1	Bacteroidetes	Cytophagia	Cecembia lonarensis
tr A0A0C1RTA3 A0A0C1RTA3_9BACT	1	Verrucomicrobia		Methylacidiphilum kamchatkense

tr U5BSD5 U5BSD5_9BACT	1	Bacteroidetes	Cytophagia	Rhodonellum psychrophilum
tr A0A017SZP8 A0A017SZP8_9DELT	1	Proteobacteria	Deltaproteobacteria	Chondromyces apiculatus
tr R5WR07 R5WR07_9BACT	1	Bacteroidetes	Bacteroidia	Alistipes sp. CAG:157
tr F0SQW1 F0SQW1_PLABD	1	Planctomycetes	Planctomycetia	Planctomyces brasiliensis
tr A0A034UBF2 A0A034UBF2_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia brasiliensis
tr L8DDJ3 L8DDJ3_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus sp. AW25M09
tr L7LDF5 L7LDF5_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia hirsuta
tr L7LBL5 L7LBL5_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia hirsuta
tr H0QWP2 H0QWP2_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr H0RLY8 H0RLY8_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia polyisoprenivorans
tr H0R4X5 H0R4X5_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr W5TH26 W5TH26_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia nova
tr R4UX48 R4UX48_MYCAB	1	Actinobacteria	Actinobacteria	Mycobacterium abscessus
tr G8RXW8 G8RXW8_MYCRN	1	Actinobacteria	Actinobacteria	Mycobacterium rhodesiae
tr E5XTR0 E5XTR0_9ACTO	1	Actinobacteria	Actinobacteria	Segniliparus rugosus
tr U5E6V1 U5E6V1_NOCAS	1	Actinobacteria	Actinobacteria	Nocardia asteroides
tr F6ERP1 F6ERP1_AMYSD	1	Actinobacteria	Actinobacteria	Amycolicococcus subflavus
tr J9SRZ1 J9SRZ1_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia sp. KTR9
tr D5UW66 D5UW66_TSUPD	6	Actinobacteria	Actinobacteria	Tsukamurella paurometabola
tr A0A0C1DBV2 A0A0C1DBV2_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia vulneris
tr E5XS62 E5XS62_9ACTO	1	Actinobacteria	Actinobacteria	Segniliparus rugosus
tr H0R405 H0R405_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr H6R4F1 H6R4F1_NOCCG	1	Actinobacteria	Actinobacteria	Nocardia cyriacigeorgica
tr W5TK72 W5TK72_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia nova
tr H5UG92 H5UG92_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia terrae
tr I0P732 I0P732_MYCAB	1	Actinobacteria	Actinobacteria	Mycobacterium abscessus
tr H0QWG0 H0QWG0_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa

tr G7GQQ7 G7GQQ7_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr Q5YVH0 Q5YVH0_NOCF	1	Actinobacteria	Actinobacteria	Nocardia farcinica
tr U5EI33 U5EI33_NOCAS	1	Actinobacteria	Actinobacteria	Nocardia asteroides
tr G7H7G0 G7H7G0_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia araii
tr D5UP34 D5UP34_TSUPD	1	Actinobacteria	Actinobacteria	Tsukamurella paurometabola
tr L7LEA8 L7LEA8_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia hirsuta
tr G7GSP9 G7GSP9_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr X5LBT5 X5LBT5_9MYCO	1	Actinobacteria	Actinobacteria	Mycobacterium vulneris
tr L8DAF2 L8DAF2_9NOCA	2	Actinobacteria	Actinobacteria	Rhodococcus sp. AW25M09
tr H0ITI5 H0ITI5_MYCAB	1	Actinobacteria	Actinobacteria	Mycobacterium abscessus
tr A0A0B8NLH2 A0A0B8NLH2_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia seriolae
tr D5UYR8 D5UYR8_TSUPD	1	Actinobacteria	Actinobacteria	Tsukamurella paurometabola
tr H0RG54 H0RG54_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia polyisoprenivorans
tr K6XAK4 K6XAK4_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia namibiensis
tr A0A0A1DKY3 A0A0A1DKY3_NOCSI	2	Actinobacteria	Actinobacteria	Pimelobacter simplex
tr W7S8N6 W7S8N6_9PSEU	2	Actinobacteria	Actinobacteria	Kutzneria sp. 744
tr G4HXY5 G4HXY5_MYCRH	1	Actinobacteria	Actinobacteria	Mycobacterium rhodesiae
tr W5WJZ9 W5WJZ9_9PSEU	1	Actinobacteria	Actinobacteria	Kutzneria albida
tr Q0SD31 Q0SD31_RHOJR	1	Actinobacteria	Actinobacteria	Rhodococcus jostii
tr H0R662 H0R662_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr R1I6Y7 R1I6Y7_9PSEU	1	Actinobacteria	Actinobacteria	Amycolatopsis vancoresmycina
tr K6WXK8 K6WXK8_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia namibiensis
tr N1M1R1 N1M1R1_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus sp. EsD8
tr D3QB63 D3QB63_STANL	1	Actinobacteria	Actinobacteria	Stackebrandtia nassauensis
tr W5TKJ6 W5TKJ6_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia nova
tr Q82B08 Q82B08_STRAW	1	Actinobacteria	Actinobacteria	Streptomyces avermitilis
tr E9UWP4 E9UWP4_9ACTO	1	Actinobacteria	Actinobacteria	Nocardioidaceae bacterium Broad-1

tr X8AC78 X8AC78_MYCAV	6	Actinobacteria	Actinobacteria	Mycobacterium avium
tr A0A049DVU2 A0A049DVU2_MYCAV	1	Actinobacteria	Actinobacteria	Mycobacterium avium
tr A0A076N4G4 A0A076N4G4_AMYME	2	Actinobacteria	Actinobacteria	Amycolatopsis methanolica
tr E2SCQ7 E2SCQ7_9ACTO	1	Actinobacteria	Actinobacteria	Aeromicrobium marinum
tr W5TSW7 W5TSW7_9NOCA	2	Actinobacteria	Actinobacteria	Nocardia nova
tr L7KJL2 L7KJL2_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia aichiensis
tr X8C805 X8C805_MYCXE	1	Actinobacteria	Actinobacteria	Mycobacterium xenopi
tr E6S9N7 E6S9N7_INTC7	2	Actinobacteria	Actinobacteria	Intrasporangium calvum
tr U5EJN4 U5EJN4_NOCAS	1	Actinobacteria	Actinobacteria	Nocardia asteroides
tr H6RMU9 H6RMU9_BLASD	2	Actinobacteria	Actinobacteria	Blastococcus saxobsidens
tr A0A076MUX5 A0A076MUX5_AMYME	2	Actinobacteria	Actinobacteria	Amycolatopsis methanolica
tr N1MJ19 N1MJ19_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus sp. EsD8
tr C1B3R9 C1B3R9_RHOOB	2	Actinobacteria	Actinobacteria	Rhodococcus opacus
tr L7L8J5 L7L8J5_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia hirsuta
tr G7GKG5 G7GKG5_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr H0R5E0 H0R5E0_9ACTO	2	Actinobacteria	Actinobacteria	Gordonia effusa
tr E2S873 E2S873_9ACTO	1	Actinobacteria	Actinobacteria	Aeromicrobium marinum
tr G7GSR4 G7GSR4_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr F8B412 F8B412_FRADG	2	Actinobacteria	Actinobacteria	Frankia symbiont of Datisca glomerata
tr E9SXF7 E9SXF7_RHOHA	1	Actinobacteria	Actinobacteria	Rhodococcus equi
tr H5TSA9 H5TSA9_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia otitidis
tr C6WH36 C6WH36_ACTMD	1	Actinobacteria	Actinobacteria	Actinosynnema mirum
tr D9UW72 D9UW72_9ACTO	1	Actinobacteria	Actinobacteria	Streptomyces sp. AA4
tr H5X5Q7 H5X5Q7_9PSEU	1	Actinobacteria	Actinobacteria	Saccharomonospora marina
tr G7GP49 G7GP49_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr E6JBI1 E6JBI1_9ACTO	1	Actinobacteria	Actinobacteria	Dietzia cinnamomea
tr A0A0B2BNA9 A0A0B2BNA9_9ACTO	1	Actinobacteria	Actinobacteria	Mumia flava

tr X7ZQS1 X7ZQS1_MYCKA	1	Actinobacteria	Actinobacteria	Mycobacterium kansasii
tr W8HIN5 W8HIN5_RHOOP	2	Actinobacteria	Actinobacteria	Rhodococcus opacus
tr E6JDS7 E6JDS7_9ACTO	2	Actinobacteria	Actinobacteria	Dietzia cinnamena
tr T1VIH4 T1VIH4_RHOER	1	Actinobacteria	Actinobacteria	Rhodococcus erythropolis
tr D1AD48 D1AD48_THECD	1	Actinobacteria	Actinobacteria	Thermomonospora curvata
tr A1SKI9 A1SKI9_NOCSI	1	Actinobacteria	Actinobacteria	Nocardiooides sp. JS614
tr B5H0E3 B5H0E3_STRC2	1	Actinobacteria	Actinobacteria	Streptomyces clavuligerus
tr A0A0A1DIP0 A0A0A1DIP0_NOCSI	1	Actinobacteria	Actinobacteria	Pimelobacter simplex
tr L7LGC5 L7LGC5_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia sihwensis
tr H5XA18 H5XA18_9PSEU	2	Actinobacteria	Actinobacteria	Saccharomonospora marina
tr D1A3I8 D1A3I8_THECD	1	Actinobacteria	Actinobacteria	Thermomonospora curvata
tr A0A0A1DK44 A0A0A1DK44_NOCSI	1	Actinobacteria	Actinobacteria	Pimelobacter simplex
tr E2SCQ6 E2SCQ6_9ACTO	1	Actinobacteria	Actinobacteria	Aeromicrobium marinum
tr G7GSR5 G7GSR5_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr M2VIV3 M2VIV3_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus triatomae
tr D5P4I7 D5P4I7_9MYCO	1	Actinobacteria	Actinobacteria	Mycobacterium parascrofulaceum
tr X7Z6I4 X7Z6I4_MYCKA	1	Actinobacteria	Actinobacteria	Mycobacterium kansasii
tr E1QEH6 E1QEH6_DESB2	1	Proteobacteria	Deltaproteobacteria	Desulfarculus baarsii
tr A0A091F962 A0A091F962_9DELT	1	Proteobacteria	Deltaproteobacteria	Smithella sp. SCADC
tr G4FMK9 G4FMK9_9SYNE	1	Cyanobacteria		Synechococcus sp. WH 8016
tr B5IQJ6 B5IQJ6_9CHRO	1	Cyanobacteria		Cyanobium sp. PCC 7001
tr A2C0C3 A2C0C3_PROM1	1	Cyanobacteria		Prochlorococcus marinus
tr A0A0A2AM06 A0A0A2AM06_PROMR	1	Cyanobacteria		Prochlorococcus marinus
tr A0A0A2BW26 A0A0A2BW26_9PROC	1	Cyanobacteria		Prochlorococcus sp. MIT 0602
tr A5GQG4 A5GQG4_SYNR3	1	Cyanobacteria		Synechococcus sp. RCC307
tr Q5N2W8 Q5N2W8_SYNP6	1	Cyanobacteria		Synechococcus elongatus
tr K9SH59 K9SH59_9CYAN	1	Cyanobacteria		Pseudanabaena sp. PCC 7367

tr Q2JUB0 Q2JUB0_SYNJA	1	Cyanobacteria		Synechococcus sp. JA-3-3Ab
tr B4WJN6 B4WJN6_9SYNE	1	Cyanobacteria		Synechococcus sp. PCC 7335
tr U5DIK0 U5DIK0_9CHRO	1	Cyanobacteria		Rubidibacter lacunae
tr K9Y9N2 K9Y9N2_HALP7	1	Cyanobacteria		Halotheca sp. PCC 7418
tr K9T3H1 K9T3H1_9CYAN	1	Cyanobacteria		Pleurocapsa minor
tr K9XQV7 K9XQV7_STAC7	1	Cyanobacteria		Stanieria cyanosphaera
tr K9W8T4 K9W8T4_9CYAN	1	Cyanobacteria		Microcoleus sp. PCC 7113
tr B7KB83 B7KB83_CYAP7	1	Cyanobacteria		Cyanothece sp. PCC 7424
tr K9RWX8 K9RWX8_SYN3	1	Cyanobacteria		Synechococcus sp. PCC 6312
tr L8MSA2 L8MSA2_9CYAN	1	Cyanobacteria		Pseudanabaena biceps
tr B0C226 B0C226_ACAM1	1	Cyanobacteria		Acaryochloris marina
tr B8HTP7 B8HTP7_CYAP4	1	Cyanobacteria		Cyanothece sp. PCC 7425
tr A0A077JDZ5 A0A077JDZ5_9CYAN	1	Cyanobacteria		cyanobacterium endosymbiont of Epithemia turgida
tr H1WM06 H1WM06_9CYAN	1	Cyanobacteria		Arthrospira sp. PCC 8005
tr K8GQV7 K8GQV7_9CYAN	1	Cyanobacteria		Oscillatoriales cyanobacterium JSC-12
tr U9VTS0 U9VTS0_9CYAN	1	Cyanobacteria		Leptolyngbya sp. Heron Island J
tr A0A0C1TAB8 A0A0C1TAB8_9CHRO	1	Cyanobacteria		Aphanocapsa montana
tr D1A3I5 D1A3I5_THECD	1	Actinobacteria	Actinobacteria	Thermomonospora curvata
tr D1AD45 D1AD45_THECD	1	Actinobacteria	Actinobacteria	Thermomonospora curvata
tr W5TQP4 W5TQP4_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia nova
tr F6ERN9 F6ERN9_AMYSD	1	Actinobacteria	Actinobacteria	Amycolicococcus subflavus
tr G7GSQ1 G7GSQ1_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr A0A0C1DRH0 A0A0C1DRH0_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia vulneris
tr I0P730 I0P730_MYCAB	1	Actinobacteria	Actinobacteria	Mycobacterium abscessus
tr L7LB86 L7LB86_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia hirsuta
tr H0R403 H0R403_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr G7GY04 G7GY04_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia araii

tr J9SBI8 J9SBI8_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia sp. KTR9
tr A0A0B8NCI5 A0A0B8NCI5_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia seriolae
tr N1M7R1 N1M7R1_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus sp. EsD8
tr H0R5M6 H0R5M6_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr H0QYS0 H0QYS0_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr G7GQQ5 G7GQQ5_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr A0A024LYA0 A0A024LYA0_9MYCO	1	Actinobacteria	Actinobacteria	Mycobacterium farcinogenes
tr F5YRK0 F5YRK0_MYCSD	1	Actinobacteria	Actinobacteria	Mycobacterium sp. JDM601
tr E5XS64 E5XS64_9ACTO	1	Actinobacteria	Actinobacteria	Segniliparus rugosus
tr G7H7G2 G7H7G2_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia araii
tr H0R4X3 H0R4X3_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr W5WKH5 W5WKH5_9PSEU	1	Actinobacteria	Actinobacteria	Kutzneria albida
tr A1SKJ0 A1SKJ0_NOCSJ	1	Actinobacteria	Actinobacteria	Nocardioides sp. JS614
tr D6AF89 D6AF89_STRFL	1	Actinobacteria	Actinobacteria	Streptomyces filamentosus
tr M2XNH7 M2XNH7_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus qingshengii
tr E6JDS8 E6JDS8_9ACTO	1	Actinobacteria	Actinobacteria	Dietzia cinnamea
tr D5UQ86 D5UQ86_TSUPD	1	Actinobacteria	Actinobacteria	Tsukamurella paurometabola
tr E2SEJ9 E2SEJ9_9ACTO	1	Actinobacteria	Actinobacteria	Aeromicrobium marinum
tr H0QWP3 H0QWP3_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr I2AD27 I2AD27_9MYCO	2	Actinobacteria	Actinobacteria	Mycobacterium sp. MOTT36Y
tr L7LAW1 L7LAW1_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia hirsuta
tr F4CXJ6 F4CXJ6_PSEUX	1	Actinobacteria	Actinobacteria	Pseudonocardia dioxanivorans
tr K6WGW0 K6WGW0_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia namibiensis
tr A0A098BQD0 A0A098BQD0_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus ruber
tr L7LDI1 L7LDI1_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia hirsuta
tr H0RK29 H0RK29_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia polyisoprenivorans
tr L7L8H2 L7L8H2_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia hirsuta

tr F8B411 F8B411_FRADG	1	Actinobacteria	Actinobacteria	Frankia symbiont of <i>Datisca glomerata</i>
tr W4A9M2 W4A9M2_RHORH	2	Actinobacteria	Actinobacteria	<i>Rhodococcus rhodochrous</i>
tr W9DNC4 W9DNC4_9PSEU	1	Actinobacteria	Actinobacteria	<i>Amycolatopsis halophila</i>
tr M2XC84 M2XC84_9NOCA	1	Actinobacteria	Actinobacteria	<i>Rhodococcus triatomae</i>
tr A0A0A1DT20 A0A0A1DT20_NOCSI	1	Actinobacteria	Actinobacteria	<i>Pimelobacter simplex</i>
tr D2B9W1 D2B9W1_STRRD	2	Actinobacteria	Actinobacteria	<i>Streptosporangium roseum</i>
tr E5XTQ9 E5XTQ9_9ACTO	1	Actinobacteria	Actinobacteria	<i>Segniliparus rugosus</i>
tr A0A0C1DA60 A0A0C1DA60_9NOCA	1	Actinobacteria	Actinobacteria	<i>Nocardia vulneris</i>
tr K0P2I7 K0P2I7_9BACT	1	Bacteroidetes	Cytophagia	<i>Cardinium</i> endosymbiont of <i>Encarsia pergandiella</i>
tr B3ES33 B3ES33_AMOA5	1	Bacteroidetes	Cytophagia	<i>Candidatus Amoebophilus asiaticus</i>
tr I4AGD9 I4AGD9_FLELS	1	Bacteroidetes	Cytophagia	<i>Flexibacter litoralis</i>
tr M7NKI7 M7NKI7_9BACT	1	Bacteroidetes	Cytophagia	<i>Cesiribacter andamanensis</i>
tr A0A098L870 A0A098L870_9BACT	1	Bacteroidetes	Cytophagia	<i>Sporocytophaga myxococcoides</i>
tr F8EK33 F8EK33_RUNSL	1	Bacteroidetes	Cytophagia	<i>Runella slithyformis</i>
tr J1FGV0 J1FGV0_9BACT	1	Bacteroidetes	Cytophagia	<i>Pontibacter</i> sp. BAB1700
tr A0A081PD39 A0A081PD39_9SPHI	1	Bacteroidetes	Sphingobacteriia	<i>Sphingobacterium antarcticum</i>
tr A1ZPY6 A1ZPY6_9BACT	1	Bacteroidetes	Cytophagia	<i>Microscilla marina</i>
tr E4TVH0 E4TVH0_MARTH	1	Bacteroidetes	Cytophagia	<i>Marivirga tractuosa</i>
tr I0KE54 I0KE54_9BACT	1	Bacteroidetes	Cytophagia	<i>Fibrella aestuarina</i>
tr R7HMZ6 R7HMZ6_9BACT	1	Bacteroidetes	Bacteroidia	<i>Prevotella</i> sp. CAG:279
tr T2NDF6 T2NDF6_PORGN	1	Bacteroidetes	Bacteroidia	<i>Porphyromonas gingivalis</i>
tr I2EQY5 I2EQY5_EMTOG	1	Bacteroidetes	Cytophagia	<i>Emticicia oligotrophica</i>
tr A0A099WU86 A0A099WU86_PORCN	1	Bacteroidetes	Bacteroidia	<i>Porphyromonas cangingivalis</i>
tr R5AQU5 R5AQU5_9BACT	1	Bacteroidetes	Bacteroidia	<i>Prevotella</i> sp. CAG:1031
tr G5HA61 G5HA61_9BACT	1	Bacteroidetes	Bacteroidia	<i>Alistipes indistinctus</i>
tr G8R7C0 G8R7C0_OWEHD	1	Bacteroidetes	Flavobacteriia	<i>Owenweeksia hongkongensis</i>
tr C7PH47 C7PH47_CHIPD	1	Bacteroidetes	Sphingobacteriia	<i>Chitinophaga pinensis</i>

tr A0A0A2EHY2 A0A0A2EHY2_9PORP	1	Bacteroidetes	Bacteroidia	Porphyromonadaceae bacterium COT-184 OH4590
tr F5IW51 F5IW51_9PORP	1	Bacteroidetes	Bacteroidia	Dysgonomonas gadei
tr F2KZG4 F2KZG4_PREDF	1	Bacteroidetes	Bacteroidia	Prevotella denticola
tr Q11X28 Q11X28_CYTH3	1	Bacteroidetes	Cytophagia	Cytophaga hutchinsonii
tr A0A090VSQ0 A0A090VSQ0_9FLAO	1	Bacteroidetes	Flavobacteriia	Jejuia pallidilutea
tr A0A0A2E7S6 A0A0A2E7S6_9PORP	1	Bacteroidetes	Bacteroidia	Porphyromonas macacae
tr A0A0C1XY96 A0A0C1XY96_9CYAN	1	Cyanobacteria		Hassallia byssoidea
tr L1MNU8 L1MNU8_9BACT	1	Bacteroidetes	Bacteroidia	Prevotella sp. oral taxon 473
tr S8GQX7 S8GQX7_9BACT	1	Bacteroidetes		Bacteroidetes bacterium oral taxon 272
tr G9S299 G9S299_9PORP	1	Bacteroidetes	Bacteroidia	Tannerella sp. 6_1_58FAA_CT1
tr H1H6W3 H1H6W3_9FLAO	1	Bacteroidetes	Flavobacteriia	Myroides odoratimimus
tr R5P0D2 R5P0D2_9PORP	1	Bacteroidetes	Bacteroidia	Odoribacter sp. CAG:788
tr F8N780 F8N780_9BACT	1	Bacteroidetes	Bacteroidia	Prevotella multisaccharivorax
tr A0A0A2N285 A0A0A2N285_9FLAO	1	Bacteroidetes	Flavobacteriia	Flavobacterium subsaxonicum
tr X5DME2 X5DME2_9BACT	1	Bacteroidetes	Bacteroidia	Draconibacterium orientale
tr A0A069ZPF2 A0A069ZPF2_9PORP	1	Bacteroidetes	Bacteroidia	Porphyromonas sp. KLE 1280
tr A0A0A2FVJ7 A0A0A2FVJ7_9PORP	1	Bacteroidetes	Bacteroidia	Porphyromonas sp. COT-108 OH2963
tr A0A0A2DUW2 A0A0A2DUW2_9PORP	1	Bacteroidetes	Bacteroidia	Porphyromonas sp. COT-239 OH1446
tr R5GCB1 R5GCB1_9PORP	1	Bacteroidetes	Bacteroidia	Porphyromonas sp. CAG:1061
tr I4A1W8 I4A1W8_ORNRL	1	Bacteroidetes	Flavobacteriia	Ornithobacterium rhinotracheale
tr A0A0A2F3F9 A0A0A2F3F9_9PORP	1	Bacteroidetes	Bacteroidia	Porphyromonas sp. COT-290 OH860
tr H8KQS8 H8KQS8_SOLCM	1	Bacteroidetes	Sphingobacteriia	Solitalea canadensis
tr C0BK49 C0BK49_FLABM	1	Bacteroidetes	Flavobacteriia	Flavobacteria bacterium MS024-2A
tr H5SGK0 H5SGK0_9BACT	1	Bacteroidetes		uncultured Bacteroidetes bacterium
tr R7EV28 R7EV28_9BACT	1	Bacteroidetes	Bacteroidia	Prevotella sp. CAG:485
tr F0NYE7 F0NYE7_WEEVC	1	Bacteroidetes	Flavobacteriia	Weeksella virosa
tr A0A0C1IWJ7 A0A0C1IWJ7_9SPHI	1	Bacteroidetes	Sphingobacteriia	Flaviumibacter solisilvae

tr A0A085L335 A0A085L335_9FLAO	1	Bacteroidetes	Flavobacteriia	Schleiferia thermophila
tr I3YYY0 I3YYY0_AEQU	1	Bacteroidetes	Flavobacteriia	Aequorivita sublithicola
tr G8TKE0 G8TKE0_NIAKG	1	Bacteroidetes	Sphingobacteriia	Niastella koreensis
tr A0A076HT00 A0A076HT00_9BACT	1	Bacteroidetes	Cytophagia	Hymenobacter sp. APR13
tr R5NYV3 R5NYV3_9BACT	1	Bacteroidetes	Bacteroidia	Paraprevotella clara CAG:116
tr T0L699 T0L699_9BACT	1			candidate division Zixibacteria
tr A0A060RBB0 A0A060RBB0_9BACT	1	Bacteroidetes	Bacteroidia	Mucinivorans hirudinis
tr A0A0B7IDH7 A0A0B7IDH7_9FLAO	1	Bacteroidetes	Flavobacteriia	Capnocytophaga canimorsus
tr A0A084THK3 A0A084THK3_9FLAO	1	Bacteroidetes	Flavobacteriia	Mangrovimonas yunxiaonensis
tr I0W9H7 I0W9H7_9FLAO	1	Bacteroidetes	Flavobacteriia	Imtechella halotolerans
tr H8XQU0 H8XQU0_FLAIG	1	Bacteroidetes	Flavobacteriia	Flavobacterium indicum
tr C3J8P0 C3J8P0_9PORP	1	Bacteroidetes	Bacteroidia	Porphyromonas endodontalis
tr K2PTK0 K2PTK0_9FLAO	1	Bacteroidetes	Flavobacteriia	Galbibacter marinus
tr C6WZS1 C6WZS1_FLAB3	1	Bacteroidetes	Flavobacteriia	Flavobacteriaceae bacterium 3519-10
tr A9DWR2 A9DWR2_9FLAO	1	Bacteroidetes	Flavobacteriia	Kordia algicida
tr S2W8N2 S2W8N2_9FLAO	1	Bacteroidetes	Flavobacteriia	Capnocytophaga granulosa
tr W8VXU7 W8VXU7_9FLAO	1	Bacteroidetes	Flavobacteriia	Nonlabens marinus
tr A0A098RZV5 A0A098RZV5_9SPHI	1	Bacteroidetes	Sphingobacteriia	Phaeodactylibacter xiamenensis
tr F2IBN3 F2IBN3_FLUTR	1	Bacteroidetes	Flavobacteriia	Fluviicola taffensis
tr F4KKC0 F4KKC0_PORAD	1	Bacteroidetes	Bacteroidia	Porphyromonas asaccharolytica
tr W4PGU6 W4PGU6_9BACE	1	Bacteroidetes	Bacteroidia	Bacteroides pyogenes
tr A0M1W6 A0M1W6_GRAFK	1	Bacteroidetes	Flavobacteriia	Gramella forsetii
tr A0A0A2GBH2 A0A0A2GBH2_9PORP	1	Bacteroidetes	Bacteroidia	Porphyromonas gingivicanis
tr D0MEJ5 D0MEJ5_RHOM4	1	Bacteroidetes		Rhodothermus marinus
tr W7YFG6 W7YFG6_9BACT	1	Bacteroidetes	Bacteroidia	Saccharicrinis fermentans
tr H1XUM8 H1XUM8_9BACT	1			Caldithrix abyssii
tr W0F9G9 W0F9G9_9SPHI	1	Bacteroidetes	Sphingobacteriia	Niabella soli

tr A0A099Y3B0 A0A099Y3B0_9FLAO	1	Bacteroidetes	Flavobacteriia	Polaribacter sp. Hell_85
tr K1Y202 K1Y202_9BACT	1			uncultured bacterium
tr R5HZE0 R5HZE0_9BACT	1	Bacteroidetes	Bacteroidia	Alistipes sp. CAG:831
tr R5SG86 R5SG86_9BACE	1	Bacteroidetes	Bacteroidia	Bacteroides sp. CAG:545
tr B0VIY3 B0VIY3_CLOAI	1	Cloacimonetes		Candidatus Cloacimonas acidaminovorans
tr C9RPE4 C9RPE4_FIBSS	1	Fibrobacteres	Fibrobacteria	Fibrobacter succinogenes
tr J114E7 J114E7_9SPHI	1	Bacteroidetes	Sphingobacteriia	Saprospira grandis
tr F4KW20 F4KW20_HALH1	1	Bacteroidetes	Sphingobacteriia	Haliscomenobacter hydrossis
tr D5HC85 D5HC85_SALRM	1	Bacteroidetes		Salinibacter ruber
tr A0A095YWT5 A0A095YWT5_9FIRM	1	Firmicutes	Clostridia	Clostridiales bacterium S5-A11
tr W0RMM3 W0RMM3_9BACT	1	Gemmatimonadetes	Gemmatimonadetes	Gemmatimonadetes bacterium KBS708
tr A0A0A6QVG1 A0A0A6QVG1_9GAMM	1	Proteobacteria	Gammaproteobacteria	Methylomonas denitrificans
tr J3GHZ5 J3GHZ5_9PSED	1	Proteobacteria	Gammaproteobacteria	Pseudomonas sp. GM55
tr F2LVU5 F2LVU5_HIPMA	1	Proteobacteria	Deltaproteobacteria	Hippea maritima
tr F2NDZ2 F2NDZ2_DESAR	1	Proteobacteria	Deltaproteobacteria	Desulfobacca acetoxidans
tr W0SFH4 W0SFH4_9RHOO	1	Proteobacteria	Betaproteobacteria	Sulfuritalea hydrogenivorans
tr I4C465 I4C465_DESTA	1	Proteobacteria	Deltaproteobacteria	Desulfomonile tiedjei
tr A0A080QB06 A0A080QB06_9GAMM	1	Proteobacteria	Gammaproteobacteria	Francisella philomiragia
tr E1YET2 E1YET2_9DELT	1	Proteobacteria	Deltaproteobacteria	uncultured Desulfobacterium sp.
tr A8ZWW9 A8ZWW9_DESOH	1	Proteobacteria	Deltaproteobacteria	Desulfococcus oleovorans
tr A0A017TF38 A0A017TF38_9DELT	1	Proteobacteria	Deltaproteobacteria	Chondromyces apiculatus
tr E2SEJ8 E2SEJ8_9ACTO	1	Actinobacteria	Actinobacteria	Aeromicrobium marinum
tr F6EN09 F6EN09_9AMYSD	1	Actinobacteria	Actinobacteria	Amycolicococcus subflavus
tr E9UWC6 E9UWC6_9ACTO	2	Actinobacteria	Actinobacteria	Nocardioideae bacterium Broad-1
tr K5B7D8 K5B7D8_9MYCO	1	Actinobacteria	Actinobacteria	Mycobacterium hassiacum
tr U0EGC3 U0EGC3_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus sp. P27
tr A0A0A1DLZ1 A0A0A1DLZ1_NOCSI	1	Actinobacteria	Actinobacteria	Pimelobacter simplex

tr D2B9W0 D2B9W0_STRRD	1	Actinobacteria	Actinobacteria	Streptosporangium roseum
tr X7XVT8 X7XVT8_MYCKA	2	Actinobacteria	Actinobacteria	Mycobacterium kansasii
tr F6EHT2 F6EHT2_AMYSD	1	Actinobacteria	Actinobacteria	Amycolicococcus subflavus
tr G7GUZ5 G7GUZ5_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr G7GMN9 G7GMN9_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr C6XKM3 C6XKM3_HIRBI	1	Proteobacteria	Alphaproteobacteria	Hirschia baltica
tr A3VIP4 A3VIP4_9RHOB	1	Proteobacteria	Alphaproteobacteria	Maritimibacter alkaliphilus
tr Q2RRK6 Q2RRK6_RHORT	1	Proteobacteria	Alphaproteobacteria	Rhodospirillum rubrum
tr A0A0B8RJ17 A0A0B8RJ17_9PROT	1	Proteobacteria	Alphaproteobacteria	alpha proteobacterium U9-1i
tr M2TAX0 M2TAX0_9PROT	1	Proteobacteria	Alphaproteobacteria	alpha proteobacterium JLT2015
tr K9H4S2 K9H4S2_9PROT	1	Proteobacteria	Alphaproteobacteria	Caenispirillum salinarum
tr A0A023D5F6 A0A023D5F6_ACIMT	1	Proteobacteria	Alphaproteobacteria	Acidomonas methanolica
tr H6MXF2 H6MXF2_GORPV	1	Actinobacteria	Actinobacteria	Gordonia polyisoprenivorans
tr I0P731 I0P731_MYCAB	1	Actinobacteria	Actinobacteria	Mycobacterium abscessus
tr W5TL33 W5TL33_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia nova
tr H5U1P3 H5U1P3_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia sputi
tr W5TJN0 W5TJN0_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia nova
tr A0A0C1DEH2 A0A0C1DEH2_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia vulneris
tr W5THK6 W5THK6_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia nova
tr U5ECQ1 U5ECQ1_NOCAS	1	Actinobacteria	Actinobacteria	Nocardia asteroides
tr K0ERB3 K0ERB3_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia brasiliensis
tr F6ERP0 F6ERP0_AMYSD	1	Actinobacteria	Actinobacteria	Amycolicococcus subflavus
tr D5UYR9 D5UYR9_TSUPD	1	Actinobacteria	Actinobacteria	Tsukamurella paurometabola
tr E5XS63 E5XS63_9ACTO	1	Actinobacteria	Actinobacteria	Segniliparus rugosus
tr L7KUZ4 L7KUZ4_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amicalis
tr N1LYM3 N1LYM3_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus sp. EsD8
tr H0RG53 H0RG53_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia polyisoprenivorans

tr A0A0B8NBH4 A0A0B8NBH4_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia seriolae
tr L7LCD4 L7LCD4_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia hirsuta
tr L7KV49 L7KV49_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amicalis
tr H0I724 H0I724_MYCAB	1	Actinobacteria	Actinobacteria	Mycobacterium abscessus
tr H0IT14 H0IT14_MYCAB	1	Actinobacteria	Actinobacteria	Mycobacterium abscessus
tr H0R404 H0R404_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr B4CTT9 B4CTT9_9BACT	1	Verrucomicrobia	Spartobacteria	Chthoniobacter flavus
tr R6JAY2 R6JAY2_9BACT	1	Verrucomicrobia	Verrucomicrobiae	Akkermansia muciniphila CAG:154
tr H0E5Y0 H0E5Y0_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr D3F0X5 D3F0X5_CONWI	1	Actinobacteria	Actinobacteria	Conexibacter woesei
tr H0E7I0 H0E7I0_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0E9E6 H0E9E6_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0E5I8 H0E5I8_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0E614 H0E614_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0E8D2 H0E8D2_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0EAY3 H0EAY3_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr A0A0B5F8Q2 A0A0B5F8Q2_9ACTO	1	Actinobacteria	Actinobacteria	Streptomyces albus
tr H0E7N8 H0E7N8_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr A0A076MQZ1 A0A076MQZ1_AMYME	2	Actinobacteria	Actinobacteria	Amycolatopsis methanolica
tr E9USY6 E9USY6_9ACTO	1	Actinobacteria	Actinobacteria	Nocardioidaceae bacterium Broad-1
tr H0E8D1 H0E8D1_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr D3F0X4 D3F0X4_CONWI	1	Actinobacteria	Actinobacteria	Conexibacter woesei
tr H0E7H6 H0E7H6_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0E7N4 H0E7N4_9ACTN	6	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr A0A076MKB1 A0A076MKB1_AMYME	1	Actinobacteria	Actinobacteria	Amycolatopsis methanolica
tr F8AY50 F8AY50_FRADG	1	Actinobacteria	Actinobacteria	Frankia symbiont of Datisca glomerata
tr H0E5K6 H0E5K6_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans

tr H0E5N8 H0E5N8_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0E5I7 H0E5I7_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr D3F0X8 D3F0X8_CONWI	1	Actinobacteria	Actinobacteria	Conexibacter woesei
tr D3F0X9 D3F0X9_CONWI	2	Actinobacteria	Actinobacteria	Conexibacter woesei
tr H0E5K4 H0E5K4_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0E5N9 H0E5N9_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0E7N5 H0E7N5_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0EAM8 H0EAM8_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0E6M8 H0E6M8_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr S7HTJ1 S7HTJ1_9FIRM	6	Firmicutes	Negativicutes	Megasphaera sp. NM10
tr G7GSQ2 G7GSQ2_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amarae
tr F6ERN8 F6ERN8_AMYSD	1	Actinobacteria	Actinobacteria	Amycolicococcus subflavus
tr H6R8W7 H6R8W7_NOCCG	1	Actinobacteria	Actinobacteria	Nocardia cyriacigeorgica
tr A0A0B8NB36 A0A0B8NB36_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia seriolae
tr W5TKU5 W5TKU5_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia nova
tr W5TMJ9 W5TMJ9_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia nova
tr I0P729 I0P729_MYCAB	1	Actinobacteria	Actinobacteria	Mycobacterium abscessus
tr D5UW64 D5UW64_TSUPD	1	Actinobacteria	Actinobacteria	Tsukamurella paurometabola
tr H0QWF7 H0QWF7_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr H0R402 H0R402_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr N1M6W3 N1M6W3_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus sp. EsD8
tr Q5YVH3 Q5YVH3_NOCFA	1	Actinobacteria	Actinobacteria	Nocardia farcinica
tr H0RLY4 H0RLY4_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia polyisoprenivorans
tr H5UG95 H5UG95_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia terrae
tr X5LYS7 X5LYS7_9MYCO	1	Actinobacteria	Actinobacteria	Mycobacterium vulneris
tr J9S7Z6 J9S7Z6_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia sp. KTR9
tr H0QWN9 H0QWN9_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa

tr A0A0B8NIF8 A0A0B8NIF8_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia seriolae
tr H0RG51 H0RG51_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia polyisoprenivorans
tr J9S4Z5 J9S4Z5_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia sp. KTR9
tr L7LB07 L7LB07_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia hirsuta
tr M2X8Q5 M2X8Q5_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus triatomae
tr H0ITI2 H0ITI2_MYCAB	1	Actinobacteria	Actinobacteria	Mycobacterium abscessus
tr L7KY97 L7KY97_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amicalis
tr G7GY03 G7GY03_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia araii
tr A0A081GLL1 A0A081GLL1_9CHRO	1	Cyanobacteria		Cyanobium sp. CACIAM 14
tr A3YTJ8 A3YTJ8_9SYNE	1	Cyanobacteria		Synechococcus sp. WH 5701
tr A3ZAH4 A3ZAH4_9SYNE	1	Cyanobacteria		Synechococcus sp. RS9917
tr G4FID8 G4FID8_9SYNE	1	Cyanobacteria		Synechococcus sp. WH 8016
tr G0A3P5 G0A3P5_METMM	1	Proteobacteria	Gammaproteobacteria	Methylomonas methanica
tr W4LUG8 W4LUG8_9DELT	1	Proteobacteria	Deltaproteobacteria	Candidatus Entotheonella sp. TSY1
tr A5G4U4 A5G4U4_GEOUR	1	Proteobacteria	Deltaproteobacteria	Geobacter uraniireducens
tr A0LKZ5 A0LKZ5_SYNFM	1	Proteobacteria	Deltaproteobacteria	Syntrophobacter fumaroxidans
tr S7TVJ4 S7TVJ4_9DELT	1	Proteobacteria	Deltaproteobacteria	Desulfovibrio sp. X2
tr D8F365 D8F365_9DELT	1	Proteobacteria	Deltaproteobacteria	delta proteobacterium NaphS2
tr S7TW54 S7TW54_DESML	1	Proteobacteria	Deltaproteobacteria	Desulfococcus multivorans
tr A0A0C2HS84 A0A0C2HS84_9DELT	1	Proteobacteria	Deltaproteobacteria	Geoalkalibacter ferrihydriticus
tr F2NFS5 F2NFS5_DESAR	1	Proteobacteria	Deltaproteobacteria	Desulfobacca acetoxidans
tr A0A0B5FKW7 A0A0B5FKW7_9DELT	1	Proteobacteria	Deltaproteobacteria	Geoalkalibacter subterraneus
tr Q30ZW6 Q30ZW6_DESAG	1	Proteobacteria	Deltaproteobacteria	Desulfovibrio alaskensis
tr B8DN57 B8DN57_DESVM	1	Proteobacteria	Deltaproteobacteria	Desulfovibrio vulgaris
tr B2A0D5 B2A0D5_OPITP	1	Verrucomicrobia	Opitutae	Opitutus terrae
tr F8UHI5 F8UHI5_9ZZZZ	1			uncultured microorganism
tr H8Z4Y8 H8Z4Y8_9GAMM	1	Proteobacteria	Gammaproteobacteria	Thiorhodovibrio sp. 970

tr W4MEV2 W4MEV2_9DELT	1	Proteobacteria	Deltaproteobacteria	Candidatus Entotheonella sp. TSY2
tr L0GYF9 L0GYF9_9GAMM	1	Proteobacteria	Gammaproteobacteria	Thioflaviccoccus mobilis
tr B9XGL6 B9XGL6_PEDPL	1	Verrucomicrobia	Verrucomicrobiae	Pedosphaera parvula
tr A0A0A2HXH7 A0A0A2HXH7_9DELT	1	Proteobacteria	Deltaproteobacteria	Desulfobulbus sp. Tol-SR
tr B8KF18 B8KF18_9GAMM	1	Proteobacteria	Gammaproteobacteria	gamma proteobacterium NOR5-3
tr B7RTG8 B7RTG8_9GAMM	1	Proteobacteria	Gammaproteobacteria	marine gamma proteobacterium HTCC2148
tr E8RGR1 E8RGR1_DESPD	1	Proteobacteria	Deltaproteobacteria	Desulfobulbus propionicus
tr G2FD41 G2FD41_9GAMM	1	Proteobacteria	Gammaproteobacteria	endosymbiont of Tevnia jerichonana
tr H5WMD1 H5WMD1_9BURK	1	Proteobacteria	Betaproteobacteria	Burkholderiales bacterium JOSHI_001
tr I3IC48 I3IC48_9GAMM	1	Proteobacteria	Gammaproteobacteria	Cellvibrio sp. BR
tr V4JMR4 V4JMR4_9GAMM	1	Proteobacteria	Gammaproteobacteria	uncultured Thiohalocapsa sp. PB-PSB1
tr K4KYM2 K4KYM2_SIMAS	1	Proteobacteria	Gammaproteobacteria	Simiduia agarivorans
tr B2JLL5 B2JLL5_BURP8	1	Proteobacteria	Betaproteobacteria	Burkholderia phymatum
tr W0E052 W0E052_MARPU	1	Proteobacteria	Gammaproteobacteria	Marichromatium purpuratum
tr I4MRH9 I4MRH9_9BURK	1	Proteobacteria	Betaproteobacteria	Hydrogenophaga sp. PBC
tr A0A081KAD9 A0A081KAD9_9GAMM	1	Proteobacteria	Gammaproteobacteria	Endozoicomonas elysicola
tr R7L8K7 R7L8K7_9BACT	1	Verrucomicrobia	Opitutae	Coralimargarita sp. CAG:312
tr B8KVH9 B8KVH9_9GAMM	1	Proteobacteria	Gammaproteobacteria	Luminiphilus sylvensis
tr W9GXU5 W9GXU5_9PROT	1	Proteobacteria	Alphaproteobacteria	Skermanella stibioresistens
tr A0A095VVA6 A0A095VVA6_9GAMM	1	Proteobacteria	Gammaproteobacteria	Pseudohalaea rubra
tr E1JSQ7 E1JSQ7_DESFR	1	Proteobacteria	Deltaproteobacteria	Desulfovibrio fructosivorans
tr B8IZN6 B8IZN6_DESDA	1	Proteobacteria	Deltaproteobacteria	Desulfovibrio desulfuricans
tr U2EPK4 U2EPK4_9GAMM	34	Proteobacteria	Gammaproteobacteria	Salinisphaera shabanensis
tr A0A081N7I0 A0A081N7I0_9GAMM	1	Proteobacteria	Gammaproteobacteria	Endozoicomonas montiporae
tr H6SL22 H6SL22_RHOPH	1	Proteobacteria	Alphaproteobacteria	Rhodospirillum photometricum
tr B1XY79 B1XY79_LEPCP	1	Proteobacteria	Betaproteobacteria	Leptothrix cholodnii
tr Q0BS50 Q0BS50_GRABC	1	Proteobacteria	Alphaproteobacteria	Granulibacter bethesdensis

tr F3S4X7 F3S4X7_9PROT	1	Proteobacteria	Alphaproteobacteria	Gluconacetobacter sp. SXCC-1
tr Q1MPH8 Q1MPH8_LAWIP	1	Proteobacteria	Deltaproteobacteria	Lawsonia intracellularis
tr M1PHI9 M1PHI9_DESSD	1	Proteobacteria	Deltaproteobacteria	Desulfocapsa sulfexigens
tr D5EIN1 D5EIN1_CORAD	1	Verrucomicrobia	Opitutae	Coralimargarita akajimensis
tr Q2IEA1 Q2IEA1_ANADE	1	Proteobacteria	Deltaproteobacteria	Anaeromyxobacter dehalogenans
tr S9S5Z1 S9S5Z1_PHAFV	1	Proteobacteria	Alphaproteobacteria	Phaeospirillum fulvum
tr R5RCH3 R5RCH3_9PROT	1	Proteobacteria		Proteobacteria bacterium CAG:495
tr A0A098GGM2 A0A098GGM2_TATMI	1	Proteobacteria	Gammaproteobacteria	Tatlockia micdadei
tr K2IJ94 K2IJ94_9PROT	1	Proteobacteria	Alphaproteobacteria	Oceanibaculum indicum
tr B5ZDK2 B5ZDK2_GLUDA	1	Proteobacteria	Alphaproteobacteria	Gluconacetobacter diazotrophicus
tr Q5ZZ42 Q5ZZ42_LEGPH	1	Proteobacteria	Gammaproteobacteria	Legionella pneumophila
tr I2DY03 I2DY03_9BURK	6	Proteobacteria	Betaproteobacteria	Burkholderia sp. KJ006
tr R5XVI9 R5XVI9_9PROT	1	Proteobacteria	Alphaproteobacteria	Acetobacter sp. CAG:267
tr A6DTV1 A6DTV1_9BACT	1	Lentisphaerae	Lentisphaeria	Lentisphaera araneosa
tr J6I926 J6I926_9FIRM	1	Firmicutes	Negativicutes	Selenomonas sp. CM52
tr C9KMC3 C9KMC3_9FIRM	1	Firmicutes	Negativicutes	Mitsuokella multacida
tr A0A0B2JWN9 A0A0B2JWN9_9FIRM	1	Firmicutes	Negativicutes	Anaerovibrio lipolyticus
tr R6IC34 R6IC34_9FIRM	1	Firmicutes	Negativicutes	Phascolarctobacterium sp. CAG:266
tr G4Q3J3 G4Q3J3_ACIIR	1	Firmicutes	Negativicutes	Acidaminococcus intestini
tr M1E695 M1E695_9FIRM	1	Firmicutes	Clostridia	Thermodesulfobium narugense
tr A0A096AJ86 A0A096AJ86_9FIRM	1	Firmicutes	Negativicutes	Veillonella montpellierensis
tr R7CT29 R7CT29_9FIRM	1	Firmicutes	Negativicutes	Dialister sp. CAG:357
tr H5SN55 H5SN55_9ZZZZ	1			uncultured prokaryote
tr B2KBY4 B2KBY4_ELUMP	1	Elusimicrobia	Elusimicrobia	Elusimicrobium minutum
tr D9PKF2 D9PKF2_9ZZZZ	1			sediment metagenome
tr D3L2J2 D3L2J2_9BACT	1	Synergistetes	Synergistia	Anaerobaculum hydrogeniformans
tr S0EU26 S0EU26_CHTCT	1	Armatimonadetes	Chthonomonadetes	Chthonomonas calidirosea

tr K5BC95 K5BC95_9MYCO	1	Actinobacteria	Actinobacteria	Mycobacterium hassiacum
tr D1A3I9 D1A3I9_THECD	2	Actinobacteria	Actinobacteria	Thermomonospora curvata
tr D1AD50 D1AD50_THECD	2	Actinobacteria	Actinobacteria	Thermomonospora curvata
tr D5UP33 D5UP33_TSUPD	1	Actinobacteria	Actinobacteria	Tsukamurella paurometabola
tr E2SGB2 E2SGB2_9ACTO	1	Actinobacteria	Actinobacteria	Aeromicrobium marinum
tr W8DX92 W8DX92_9FLOR	1	Rhodophyta	Florideophyceae	Gracilaria salicornia
tr M5DDI3 M5DDI3_CHOCHR	1	Rhodophyta	Florideophyceae	Chondrus crispus
tr M4ITX4 M4ITX4_CALTB	1	Rhodophyta	Florideophyceae	Calliarthron tuberculosum
tr M4QH14 M4QH14_PYRYE	1	Rhodophyta	Bangiophyceae	Pyropia yezoensis
tr A0A0B5W5W5 A0A0B5W5W5_9FLOR	1	Rhodophyta	Florideophyceae	Vertebrata lanosa
tr M1WZE5 M1WZE5_9NOST	1	Cyanobacteria		Richelia intracellularis
tr K9TI08 K9TI08_9CYAN	1	Cyanobacteria		Oscillatoria acuminata
tr E0UEU6 E0UEU6_CYAP2	1	Cyanobacteria		Cyanothece sp. PCC 7822
tr K9SAM0 K9SAM0_9CYAN	1	Cyanobacteria		Geitlerinema sp. PCC 7407
tr I4GHH3 I4GHH3_MICAE	1	Cyanobacteria		Microcystis aeruginosa
tr A0A0C2KX23 A0A0C2KX23_9CYAN	1	Cyanobacteria		Tolypothrix campylonemoides
tr B7KAF9 B7KAF9_CYAP7	1	Cyanobacteria		Cyanothece sp. PCC 7424
tr Q85G49 Q85G49_CYAME	1	Rhodophyta	Bangiophyceae	Cyanidioschyzon merolae
tr E1ZQ59 E1ZQ59_CHLVA	1	Chlorophyta	Trebouxiophyceae	Chlorella variabilis
tr K9ZMD4 K9ZMD4_ANACC	1	Cyanobacteria		Anabaena cylindrica
tr A0A0C1WCB9 A0A0C1WCB9_9CYAN	1	Cyanobacteria		Scytonema millei
tr F5UHF2 F5UHF2_9CYAN	1	Cyanobacteria		Microcoleus vaginatus
tr D8RA32 D8RA32_SELML	1	Streptophyta		Selaginella moellendorffii
tr K9UM08 K9UM08_9CHRO	1	Cyanobacteria		Chamaesiphon minutus
tr Q113C6 Q113C6_TRIEI	1	Cyanobacteria		Trichodesmium erythraeum
tr L8LYK1 L8LYK1_9CYAN	1	Cyanobacteria		Xenococcus sp. PCC 7305
tr K9PWE9 K9PWE9_9CYAN	1	Cyanobacteria		Leptolyngbya sp. PCC 7376

tr A0A098G1D3 A0A098G1D3_9GAMM	1	Proteobacteria	Gammaproteobacteria	Legionella fallonii
tr D3HS59 D3HS59_LEGLN	1	Proteobacteria	Gammaproteobacteria	Legionella longbeachae
tr E5XTR2 E5XTR2_9ACTO	1	Actinobacteria	Actinobacteria	Segniliparus rugosus
tr C9LPP2 C9LPP2_9FIRM	1	Firmicutes	Negativicutes	Dialister invisus
tr A0A0C1XFX3 A0A0C1XFX3_9CYAN	1	Cyanobacteria		Hassallia byssoidea
tr H1D371 H1D371_9FIRM	1	Firmicutes	Negativicutes	Dialister succinatiphilus
tr A8ZRS4 A8ZRS4_DESOH	1	Proteobacteria	Deltaproteobacteria	Desulfococcus oleovorans
tr A0A077K340 A0A077K340_LIBAS	1	Proteobacteria	Alphaproteobacteria	Candidatus Liberibacter asiaticus
tr D2B9W2 D2B9W2_STRRD	2	Actinobacteria	Actinobacteria	Streptosporangium roseum
tr C3XC81 C3XC81_OXAFO	1	Proteobacteria	Betaproteobacteria	Oxalobacter formigenes
tr D8EW13 D8EW13_9DELT	1	Proteobacteria	Deltaproteobacteria	delta proteobacterium NaphS2
tr N6ZUM6 N6ZUM6_9RHOO	1	Proteobacteria	Betaproteobacteria	Thauera phenylacetica
tr H0TS64 H0TS64_9BRAD	1	Proteobacteria	Alphaproteobacteria	Bradyrhizobium sp. STM 3843
tr A0A0B0ENV4 A0A0B0ENV4_9BACT	1	Planctomycetes	Planctomycetia	Candidatus Scalindua brodae
tr C7LVW2 C7LVW2_DESBD	1	Proteobacteria	Deltaproteobacteria	Desulfomicrobium baculatum
tr K9HJ50 K9HJ50_9PROT	1	Proteobacteria	Alphaproteobacteria	Caenispirillum salinarum
tr A6GAD6 A6GAD6_9DELT	1	Proteobacteria	Deltaproteobacteria	Plesiocystis pacifica
tr B3QVW9 B3QVW9_CHLT3	1	Chlorobi	Chlorobia	Chloroherpeton thalassium
tr F8F160 F8F160_TRECH	1	Spirochaetes	Spirochaetia	Treponema caldaria
tr F5Y8F4 F5Y8F4_TREAZ	1	Spirochaetes	Spirochaetia	Treponema azotonutricium
tr E0RRH8 E0RRH8_SPITD	1	Spirochaetes	Spirochaetia	Spirochaeta thermophila
tr E1R695 E1R695_SPISS	1	Spirochaetes	Spirochaetia	Spirochaeta smaragdinae
tr U1LTX9 U1LTX9_9GAMM	1	Proteobacteria	Gammaproteobacteria	Pseudoalteromonas rubra
tr F5YJA1 F5YJA1_TREPZ	1	Spirochaetes	Spirochaetia	Treponema primitia
tr S6D5Y1 S6D5Y1_ACEPA	1	Proteobacteria	Alphaproteobacteria	Acetobacter pasteurianus
tr A0A060QGU1 A0A060QGU1_9PROT	1	Proteobacteria	Alphaproteobacteria	Asaia platycodi
tr Q0BS79 Q0BS79_GRABC	1	Proteobacteria	Alphaproteobacteria	Granulibacter thesedensis

tr W7DWD6 W7DWD6_9PROT	1	Proteobacteria	Alphaproteobacteria	Commensalibacter sp. MX01
tr A0A060Q9W3 A0A060Q9W3_9PROT	1	Proteobacteria	Alphaproteobacteria	Saccharibacter sp. AM169
tr A0A011NGR7 A0A011NGR7_9PROT	1	Proteobacteria	Betaproteobacteria	Candidatus Accumulibacter sp. BA-92
tr F3GK63 F3GK63_PSESJ	1	Proteobacteria	Gammaproteobacteria	Pseudomonas syringae
tr D2PUA2 D2PUA2_KRIFD	1	Actinobacteria	Actinobacteria	Kribbella flavida
tr V8TLZ7 V8TLZ7_9CHLA	1	Chlamydiae	Chlamydiia	Chlamydia pecorum
tr Q5L5P3 Q5L5P3_CHLAB	1	Chlamydiae	Chlamydiia	Chlamydophila abortus
tr F8L848 F8L848_SIMNZ	1	Chlamydiae	Chlamydiia	Simkania negevensis
tr K2ED49 K2ED49_9BACT	1			uncultured bacterium
tr A0A0C1HIS7 A0A0C1HIS7_9CHLA	1	Chlamydiae	Chlamydiia	Neochlamydia sp. EPS4
tr A0A0C2YU48 A0A0C2YU48_MAGMG	1	Proteobacteria	Alphaproteobacteria	Magnetospirillum magnetotacticum
tr Q2RQ88 Q2RQ88_RHORT	1	Proteobacteria	Alphaproteobacteria	Rhodospirillum rubrum
tr C5JAQ5 C5JAQ5_9BACT	1			uncultured bacterium
tr W6KBR3 W6KBR3_9PROT	1	Proteobacteria	Alphaproteobacteria	Magnetospira sp. QH-2
tr A0A0B0HB63 A0A0B0HB63_SOVGS	1	Proteobacteria	Gammaproteobacteria	Solemya velum gill symbiont
tr D5BR40 D5BR40_PUNMI	1	Proteobacteria	Alphaproteobacteria	Candidatus Puniceispirillum marinum
tr G5ZYC3 G5ZYC3_9PROT	1	Proteobacteria	Alphaproteobacteria	SAR116 cluster alpha proteobacterium HIMB100
tr F9UI97 F9UI97_9GAMM	1	Proteobacteria	Gammaproteobacteria	Thiocapsa marina
tr L0R8C9 L0R8C9_9DELT	1	Proteobacteria	Deltaproteobacteria	Desulfovibrio hydrothermalis
tr W5YCB9 W5YCB9_KOMXY	1	Proteobacteria	Alphaproteobacteria	Komagataeibacter xylinus
tr A0A0B8NN74 A0A0B8NN74_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia seriolae
tr L8DGA8 L8DGA8_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus sp. AW25M09
tr G7GXB0 G7GXB0_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia araii
tr A0A089UGL1 A0A089UGL1_MYCAB	1	Actinobacteria	Actinobacteria	Mycobacterium abscessus
tr G8RXX0 G8RXX0_MYCRN	1	Actinobacteria	Actinobacteria	Mycobacterium rhodesiae
tr D6Z975 D6Z975_SEGRD	1	Actinobacteria	Actinobacteria	Segniliparus rotundus
tr L7LDL3 L7LDL3_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia hirsuta

tr H6MY46 H6MY46_GORPV	1	Actinobacteria	Actinobacteria	Gordonia polyisoprenivorans
tr H0QWP4 H0QWP4_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr H5UKZ0 H5UKZ0_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia terrae
tr D5UW68 D5UW68_TSUPD	1	Actinobacteria	Actinobacteria	Tsukamurella paurometabola
tr B3QS87 B3QS87_CHLT3	1	Chlorobi	Chlorobia	Chloroherpeton thalassium
tr Q029L2 Q029L2_SOLUE	1	Acidobacteria	Solibacteres	Candidatus Solibacter usitatus
tr G2LE23 G2LE23_CHLTF	1	Acidobacteria		Candidatus Chloracidobacterium thermophilum
tr L8D9B1 L8D9B1_9NOCA	1	Actinobacteria	Actinobacteria	Rhodococcus sp. AW25M09
tr M3VHL4 M3VHL4_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia paraffinivorans
tr H0R661 H0R661_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr B1MHM4 B1MHM4_MYCA9	1	Actinobacteria	Actinobacteria	Mycobacterium abscessus
tr A0A022LUR2 A0A022LUR2_9ACTO	1	Actinobacteria	Actinobacteria	Dietzia sp. UCD-THP
tr L7L6L0 L7L6L0_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia hirsuta
tr A0A0A1DIU8 A0A0A1DIU8_NOCSI	1	Actinobacteria	Actinobacteria	Pimelobacter simplex
tr E9UWP5 E9UWP5_9ACTO	1	Actinobacteria	Actinobacteria	Nocardioideaceae bacterium Broad-1
tr H5X8F9 H5X8F9_9PSEU	1	Actinobacteria	Actinobacteria	Saccharomonospora marina
tr I0P733 I0P733_MYCAB	1	Actinobacteria	Actinobacteria	Mycobacterium abscessus
tr E2S872 E2S872_9ACTO	1	Actinobacteria	Actinobacteria	Aeromicrobium marinum
tr H0RDR8 H0RDR8_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia polyisoprenivorans
tr H0R4X6 H0R4X6_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr A0A0B8NCM8 A0A0B8NCM8_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia seriola
tr L7K4P6 L7K4P6_GORRU	1	Actinobacteria	Actinobacteria	Gordonia rubripertincta
tr D5UYR7 D5UYR7_TSUPD	1	Actinobacteria	Actinobacteria	Tsukamurella paurometabola
tr H6R8W4 H6R8W4_NOCCG	1	Actinobacteria	Actinobacteria	Nocardia cyriacigeorgica
tr D5UW67 D5UW67_TSUPD	1	Actinobacteria	Actinobacteria	Tsukamurella paurometabola
tr U5ELN3 U5ELN3_NOCAS	1	Actinobacteria	Actinobacteria	Nocardia asteroides
tr L7LEC1 L7LEC1_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia hirsuta

tr L7LDJ2 L7LDJ2_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia hirsuta
tr D6Z974 D6Z974_SEGRD	1	Actinobacteria	Actinobacteria	Segniliparus rotundus
tr V7KTT9 V7KTT9_MYCPC	1	Actinobacteria	Actinobacteria	Mycobacterium avium
tr F6EN08 F6EN08_AMYSD	1	Actinobacteria	Actinobacteria	Amycolicococcus subflavus
tr L7KXK9 L7KXK9_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amicalis
tr C6WN65 C6WN65_ACTMD	6	Actinobacteria	Actinobacteria	Actinosynnema mirum
tr W8HEA5 W8HEA5_RHOOP	2	Actinobacteria	Actinobacteria	Rhodococcus opacus
tr H0R406 H0R406_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr A0A08111V3 A0A08111V3_9MYCO	1	Actinobacteria	Actinobacteria	Mycobacterium sp. TKK-01-0059
tr D5P5W1 D5P5W1_9MYCO	1	Actinobacteria	Actinobacteria	Mycobacterium parascrofulaceum
tr G7H7F9 G7H7F9_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia araii
tr A0A0B8NIF5 A0A0B8NIF5_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia seriolae
tr J9S094 J9S094_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia sp. KTR9
tr K0VAU2 K0VAU2_MYCFO	1	Actinobacteria	Actinobacteria	Mycobacterium fortuitum
tr F6EHS3 F6EHS3_AMYSD	1	Actinobacteria	Actinobacteria	Amycolicococcus subflavus
tr H0ITI6 H0ITI6_MYCAB	1	Actinobacteria	Actinobacteria	Mycobacterium abscessus
tr H0QWG1 H0QWG1_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia effusa
tr H5U1P1 H5U1P1_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia sputi
tr H5UG91 H5UG91_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia terrae
tr H0RMK6 H0RMK6_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia polyisoprenivorans
tr B3SFA0 B3SFA0_TRIAD	37	Placozoa		Trichoplax adhaerens
tr L7L1E9 L7L1E9_9ACTO	1	Actinobacteria	Actinobacteria	Gordonia amicalis
tr R6PMH5 R6PMH5_9CLOT	1	Firmicutes	Clostridia	Clostridium sp. CAG:306
tr R5K923 R5K923_9CLOT	1	Firmicutes	Clostridia	Clostridium sp. CAG:967
tr R5SYZ8 R5SYZ8_9GAMM	1	Proteobacteria	Gammaproteobacteria	Acinetobacter sp. CAG:196
tr R7MF15 R7MF15_9CLOT	1	Firmicutes	Clostridia	Clostridium sp. CAG:813
tr K2EV59 K2EV59_9BACT	1			uncultured bacterium

tr R5H5L0 R5H5L0_9SPIR	1	Spirochaetes	Spirochaetia	Brachyspira sp. CAG:484
tr F7US12 F7US12_SYNYG	1	Cyanobacteria		Synechocystis sp. PCC 6803
tr L8LQP9 L8LQP9_9CHRO	1	Cyanobacteria		Gloeocapsa sp. PCC 73106
tr D8FZ94 D8FZ94_9CYAN	1	Cyanobacteria		[Oscillatoria] sp. PCC 6506
tr I4INL4 I4INL4_MICAE	1	Cyanobacteria		Microcystis aeruginosa
tr A0A073CN05 A0A073CN05_PLAAG	1	Cyanobacteria		Planktothrix agardhii
tr A0A068MXK0 A0A068MXK0_SYNY4	1	Cyanobacteria		Synechocystis sp. PCC 6714
tr K9YNG8 K9YNG8_CYASC	1	Cyanobacteria		Cyanobacterium stanieri
tr K9Z8P8 K9Z8P8_CYAAP	1	Cyanobacteria		Cyanobacterium aponinum
tr V5V315 V5V315_9CHRO	1	Cyanobacteria		Thermosynechococcus sp. NK55a
tr U5QHE0 U5QHE0_9CYAN	1	Cyanobacteria	Gloeobacteria	Gloeobacter kilaueensis
tr A0A061RFD7 A0A061RFD7_9CHLO	1	Chlorophyta	Chlorodendrophyceae	Tetraselmis sp. GSL018
tr M4F3Z1 M4F3Z1_BRARP	23	Streptophyta		Brassica rapa
tr K8F4W2 K8F4W2_9CHLO	1	Chlorophyta	Mamiellophyceae	Bathycoccus prasinos
tr R7WDS0 R7WDS0_AEGTA	1	Streptophyta	Liliopsida	Aegilops tauschii
tr I2PX81 I2PX81_9DELT	1	Proteobacteria	Deltaproteobacteria	Desulfovibrio sp. U5L
tr U7D4Y0 U7D4Y0_9BACT	1	Fibrobacteres	Chitinivibrionia	Chitinivibrio alkaliphilus
tr I7A3J2 I7A3J2_MELRP	1	Ignavibacteriae	Ignavibacteria	Melioribacter roseus
tr B3QRY4 B3QRY4_CHLT3	1	Chlorobi	Chlorobia	Chloroherpeton thalassium
tr G7VAB7 G7VAB7_THELD	1	Synergistetes	Synergistia	Thermovirga lienii
tr B1ZUD3 B1ZUD3_OPITP	1	Verrucomicrobia	Opitutae	Opitutus terrae
tr A0A061R3K3 A0A061R3K3_9CHLO	1	Chlorophyta	Chlorodendrophyceae	Tetraselmis sp. GSL018
tr A0A0B2S1Y9 A0A0B2S1Y9_GLYSO	1	Streptophyta		Glycine soja
tr M0VLR3 M0VLR3_HORVD	1	Streptophyta	Liliopsida	Hordeum vulgare
tr D8TMP4 D8TMP4_VOLCA	1	Chlorophyta	Chlorophyceae	Volvox carteri
tr I0AJV2 I0AJV2_IGNAJ	1	Ignavibacteriae	Ignavibacteria	Ignavibacterium album
tr I4BAE9 I4BAE9_TURPD	1	Spirochaetes	Spirochaetia	Turneriella parva

tr A0A084SZ26 A0A084SZ26_9DELT	1	Proteobacteria	Deltaproteobacteria	Cystobacter violaceus
tr C0BMZ4 C0BMZ4_9BACT	1	Bacteroidetes	Flavobacteriia	Flavobacteria bacterium MS024-3C
tr A0A060Q9R5 A0A060Q9R5_9PROT	1	Proteobacteria	Alphaproteobacteria	Saccharibacter sp. AM169
tr E6Q2N8 E6Q2N8_9ZZZZ	1			mine drainage metagenome
tr X1IP95 X1IP95_9ZZZZ	1			marine sediment metagenome
tr B9XRW0 B9XRW0_PEDPL	1	Verrucomicrobia	Verrucomicrobiae	Pedosphaera parvula
tr R7CU31 R7CU31_9FIRM	1	Firmicutes	Negativicutes	Dialister sp. CAG:357
tr W1S137 W1S137_9SPHN	1	Proteobacteria	Alphaproteobacteria	Sphingobium sp. C100
tr A0A0A6CX02 A0A0A6CX02_9SPHN	1	Proteobacteria	Alphaproteobacteria	Sphingomonas sp. Ant20
tr A5PDE9 A5PDE9_9SPHN	1	Proteobacteria	Alphaproteobacteria	Erythrobacter sp. SD-21
tr H0E7N6 H0E7N6_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr A6CDE5 A6CDE5_9PLAN	1	Planctomycetes	Planctomycetia	Planctomyces maris
tr X8F536 X8F536_MYCUL	1	Actinobacteria	Actinobacteria	Mycobacterium ulcerans
tr A0A024JUZ3 A0A024JUZ3_9MYCO	1	Actinobacteria	Actinobacteria	Mycobacterium triplex
tr E9USY5 E9USY5_9ACTO	1	Actinobacteria	Actinobacteria	Nocardioideaceae bacterium Broad-1
tr A0A076MKP2 A0A076MKP2_9AMYME	1	Actinobacteria	Actinobacteria	Amycolatopsis methanolica
tr A0A0B5F9V1 A0A0B5F9V1_9ACTO	1	Actinobacteria	Actinobacteria	Streptomyces albus
tr A0A076MT28 A0A076MT28_9AMYME	1	Actinobacteria	Actinobacteria	Amycolatopsis methanolica
tr A0A0B5F6P9 A0A0B5F6P9_9ACTO	1	Actinobacteria	Actinobacteria	Streptomyces albus
tr H0EAN1 H0EAN1_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr E9USY2 E9USY2_9ACTO	1	Actinobacteria	Actinobacteria	Nocardioideaceae bacterium Broad-1
tr H0E6M7 H0E6M7_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0E6M4 H0E6M4_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr A0A0B5EZK5 A0A0B5EZK5_9ACTO	1	Actinobacteria	Actinobacteria	Streptomyces albus
tr H0E5N7 H0E5N7_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr A0A076N0G6 A0A076N0G6_9AMYME	1	Actinobacteria	Actinobacteria	Amycolatopsis methanolica
tr D3F0X6 D3F0X6_CONWI	1	Actinobacteria	Actinobacteria	Conexibacter woesei

tr H0E5K5 H0E5K5_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr X8C6V2 X8C6V2_MYCXE	1	Actinobacteria	Actinobacteria	Mycobacterium xenopi
tr Q317Q4 Q317Q4_DESAG	1	Proteobacteria	Deltaproteobacteria	Desulfovibrio alaskensis
tr T2G999 T2G999_DESGI	1	Proteobacteria	Deltaproteobacteria	Desulfovibrio gigas
tr A0A068JLL7 A0A068JLL7_9DELT	1	Proteobacteria	Deltaproteobacteria	Desulfonatronum thiodismutans
tr B8FKV6 B8FKV6_DESAA	1	Proteobacteria	Deltaproteobacteria	Desulfatibacillum alkenivorans
tr D5UYS1 D5UYS1_TSUPD	1	Actinobacteria	Actinobacteria	Tsukamurella paurometabola
tr G2PRP0 G2PRP0_MURRD	1	Bacteroidetes	Flavobacteriia	Muricauda ruestringensis
tr H1Y660 H1Y660_9SPHI	1	Bacteroidetes	Sphingobacteriia	Mucilaginibacter paludis
tr G8TD13 G8TD13_NIAKG	1	Bacteroidetes	Sphingobacteriia	Niastella koreensis
tr A0A0A2N3S4 A0A0A2N3S4_9FLAO	1	Bacteroidetes	Flavobacteriia	Flavobacterium subsaxonicum
tr K7Z2L4 K7Z2L4_BDEBC	1	Proteobacteria	Deltaproteobacteria	Bdellovibrio bacteriovorus
tr D0LTW5 D0LTW5_HALO1	1	Proteobacteria	Deltaproteobacteria	Haliangium ochraceum
tr R6APB1 R6APB1_9FIRM	1	Firmicutes	Negativicutes	Dialister sp. CAG:486
tr H0E7N7 H0E7N7_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0EAN0 H0EAN0_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0E6M6 H0E6M6_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr A0A076MU17 A0A076MU17_9AMYME	1	Actinobacteria	Actinobacteria	Amycolatopsis methanolica
tr A0A076N0H2 A0A076N0H2_9AMYME	1	Actinobacteria	Actinobacteria	Amycolatopsis methanolica
tr H0E8D5 H0E8D5_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0E5Y4 H0E5Y4_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0EAY5 H0EAY5_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr F8AY49 F8AY49_FRADG	1	Actinobacteria	Actinobacteria	Frankia symbiont of Datisca glomerata
tr A0A076MM50 A0A076MM50_9AMYME	1	Actinobacteria	Actinobacteria	Amycolatopsis methanolica
tr K5BP85 K5BP85_LEPME	1	Spirochaetes	Spirochaetia	Leptospira meyeri
tr H2CAK7 H2CAK7_9LEPT	1	Spirochaetes	Spirochaetia	Leptonema illini
tr N1WL36 N1WL36_9LEPT	1	Spirochaetes	Spirochaetia	Leptospira weilii

tr R8ZSH3 R8ZSH3_9LEPT	1	Spirochaetes	Spirochaetia	Leptospira yanagawae
tr F6EN12 F6EN12_AMYSD	1	Actinobacteria	Actinobacteria	Amycolalicoccus subflavus
tr F6EHS6 F6EHS6_AMYSD	2	Actinobacteria	Actinobacteria	Amycolalicoccus subflavus
tr D1A3I6 D1A3I6_THECD	1	Actinobacteria	Actinobacteria	Thermomonospora curvata
tr A3ZZF3 A3ZZF3_9PLAN	1	Planctomycetes	Planctomycetia	Blastopirellula marina
tr K2DZQ2 K2DZQ2_9BACT	1			uncultured bacterium
tr D5UYR6 D5UYR6_TSUPD	1	Actinobacteria	Actinobacteria	Tsukamurella paurometabola
tr I9IY71 I9IY71_MYCAB	1	Actinobacteria	Actinobacteria	Mycobacterium abscessus
tr W5WX97 W5WX97_BDEBC	1	Proteobacteria	Deltaproteobacteria	Bdellovibrio bacteriovorus
tr H0E5X9 H0E5X9_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr I3IRA7 I3IRA7_9PLAN	1	Planctomycetes	Planctomycetia	planctomycete KSU-1
tr L0DA47 L0DA47_SINAD	18	Planctomycetes	Planctomycetia	Singulisphaera acidiphila
tr C0QWQ9 C0QWQ9_BRAHW	1	Spirochaetes	Spirochaetia	Brachyspira hyodysenteriae
tr F8AY53 F8AY53_FRADG	1	Actinobacteria	Actinobacteria	Frankia symbiont of Datisca glomerata
tr H0E9N4 H0E9N4_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0E613 H0E613_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0E056 H0E056_9ACTN	6	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr F8AY52 F8AY52_FRADG	1	Actinobacteria	Actinobacteria	Frankia symbiont of Datisca glomerata
tr H0E5Y2 H0E5Y2_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0E4W7 H0E4W7_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H5X813 H5X813_9PSEU	1	Actinobacteria	Actinobacteria	Saccharomonospora marina
tr J9Z1B9 J9Z1B9_9PROT	1	Proteobacteria	Alphaproteobacteria	alpha proteobacterium HIMB59
tr H0E7H8 H0E7H8_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr D3F0X7 D3F0X7_CONWI	1	Actinobacteria	Actinobacteria	Conexibacter woesei
tr A0A076MX42 A0A076MX42_AMYME	1	Actinobacteria	Actinobacteria	Amycolatopsis methanolica
tr D5SYW1 D5SYW1_PLAL2	1	Planctomycetes	Planctomycetia	Planctomyces limnophilus
tr A0A068NM91 A0A068NM91_9BACT	1	Armatimonadetes		Fimbriimonas ginsengisoli

tr B4D2R0 B4D2R0_9BACT	1	Verrucomicrobia	Spartobacteria	Chthoniobacter flavus
tr C1AEH1 C1AEH1_GEMAT	1	Gemmatimonadetes	Gemmatimonadetes	Gemmatimonas aurantiaca
tr D6YWR8 D6YWR8_WADCW	1	Chlamydiae	Chlamydiia	Waddlia chondrophila
tr A0A090D362 A0A090D362_9CHLA	1	Chlamydiae	Chlamydiia	Criblamydia sequanensis
tr A0A0C1JWL0 A0A0C1JWL0_9CHLA	1	Chlamydiae	Chlamydiia	Candidatus Protochlamydia amoebophila
tr H0E8D6 H0E8D6_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0E615 H0E615_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr A0A076MU15 A0A076MU15_9AMYME	2	Actinobacteria	Actinobacteria	Amycolatopsis methanolica
tr H0E9M2 H0E9M2_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr R6QJ33 R6QJ33_9CLOT	6	Firmicutes	Clostridia	Clostridium sp. CAG:306
tr D2R1T9 D2R1T9_PIRSD	1	Planctomycetes	Planctomycetia	Pirellula staleyii
tr D1AD46 D1AD46_THECD	2	Actinobacteria	Actinobacteria	Thermomonospora curvata
tr A0A0C1DR60 A0A0C1DR60_9NOCA	1	Actinobacteria	Actinobacteria	Nocardia vulneris
tr H0E5Y3 H0E5Y3_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0E6M5 H0E6M5_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0EAY6 H0EAY6_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr H0E7H9 H0E7H9_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr M8AXE3 M8AXE3_TRIUA	1	Streptophyta	Liliopsida	Triticum urartu
tr F2NHU4 F2NHU4_DESAR	1	Proteobacteria	Deltaproteobacteria	Desulfobacca acetoxidans
tr W7R1V4 W7R1V4_9ALTE	1	Proteobacteria	Gammaproteobacteria	Catenovulum agarivorans
tr H0E5Y1 H0E5Y1_9ACTN	1	Actinobacteria	Actinobacteria	Patulibacter medicamentivorans
tr R5H6Y8 R5H6Y8_9SPIR	1	Spirochaetes	Spirochaetia	Brachyspira sp. CAG:484
tr R5DQ85 R5DQ85_9CLOT	1	Firmicutes	Clostridia	Clostridium sp. CAG:715
tr B5JTN8 B5JTN8_9GAMM	1	Proteobacteria	Gammaproteobacteria	gamma proteobacterium HTCC5015
tr X1BXX8 X1BXX8_9ZZZZ	1			marine sediment metagenome
tr X8C7T7 X8C7T7_MYCXE	1	Actinobacteria	Actinobacteria	Mycobacterium xenopi
tr J0P0C1 J0P0C1_9SPHI	1	Bacteroidetes	Shingobacteriia	Saprospira grandis

tr K0NE48 K0NE48_DESTT	1	Proteobacteria	Deltaproteobacteria	Desulfobacula toluolica
tr S0FWQ6 S0FWQ6_9DELT	1	Proteobacteria	Deltaproteobacteria	Desulfotignum phosphitoxidans
tr A8ZZZ7 A8ZZZ7_DESOH	1	Proteobacteria	Deltaproteobacteria	Desulfococcus oleovorans
tr A0A0C1ZAS7 A0A0C1ZAS7_9DELT	6	Proteobacteria	Deltaproteobacteria	Enhygromyxa salina
tr L0D9L0 L0D9L0_SINAD	1	Planctomycetes	Planctomycetia	Singulisphaera acidiphila
tr E8R0Y9 E8R0Y9_ISOPI	1	Planctomycetes	Planctomycetia	Isosphaera pallida
tr H5SCE0 H5SCE0_9BACT	1	Planctomycetes	Planctomycetia	uncultured planctomycete
tr R7M8T4 R7M8T4_9CLOT	1	Firmicutes	Clostridia	Clostridium sp. CAG:813
tr K2DY95 K2DY95_9BACT	6			uncultured bacterium
tr W0RIJ3 W0RIJ3_9BACT	1	Gemmatimonadetes	Gemmatimonadetes	Gemmatimonadetes bacterium KBS708
tr L0D8H7 L0D8H7_SINAD	1	Planctomycetes	Planctomycetia	Singulisphaera acidiphila
tr E8QZ15 E8QZ15_ISOPI	1	Planctomycetes	Planctomycetia	Isosphaera pallida
tr K2E2I3 K2E2I3_9BACT	1			uncultured bacterium
tr A0A081C4Z6 A0A081C4Z6_9BACT	1			bacterium UASB270
tr M5UNM7 M5UNM7_9PLAN	1	Planctomycetes	Planctomycetia	Rhodopirellula sallentina
tr C9RQK3 C9RQK3_FIBSS	1	Fibrobacteres	Fibrobacteria	Fibrobacter succinogenes
tr T1CFS9 T1CFS9_9ZZZZ	1			mine drainage metagenome
tr X8C791 X8C791_MYCXE	1	Actinobacteria	Actinobacteria	Mycobacterium xenopi
tr W6THL8 W6THL8_HOLOB	1	Proteobacteria	Alphaproteobacteria	Holospora obtusa