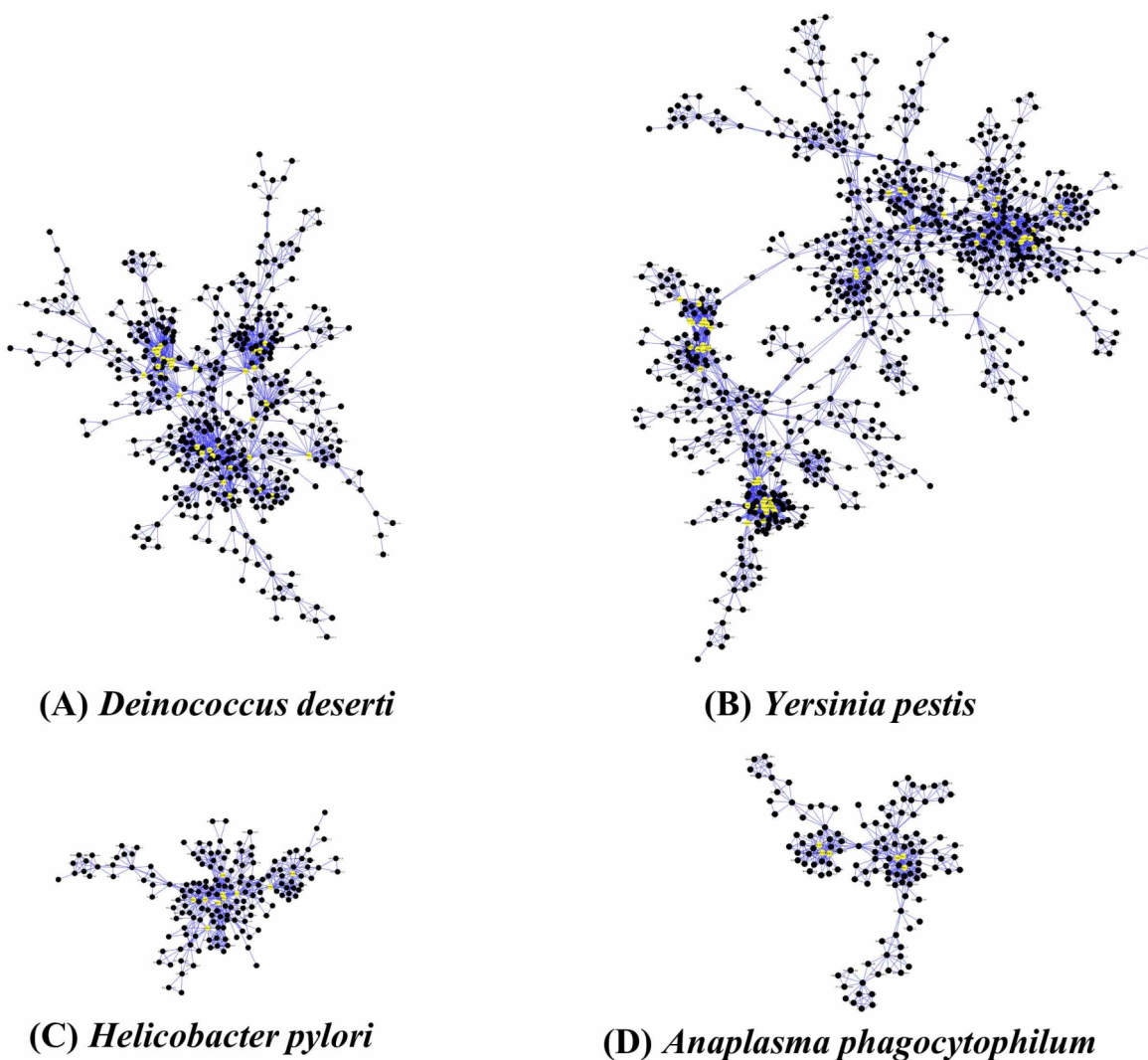


Supplementary Material

Domain-based Comparative Analysis of Bacterial Proteomes: Uniqueness, Interactions, and the Dark Matter

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Supplementary Figure 1 Visualization of core domain interactions in four representative bacterial species. (A) free-living bacterium *Deinococcus deserti*, (B) pathogenic bacterium *Yersinia pestis* with sit-and-wait potential, (C) host-associated and obligate-intracellular pathogen *Helicobacter pylori*, and (D) vector-borne bacterium *Anaplasma phagocytophilum*. Domains with greater than or equal to 20 direct linkages to other target domains are marked in yellow colour. A single cluster with most domains for each species was present. For the names of highly interacted domains (≥ 20 co-occurrent domains) in each bacterium, please refer to **Supplementary Table 2**.

Supplementary Table 1 Distributions of four groups of proteins in 944 bacterial proteomes. Protein groups are defined according to their domain numbers, that is, proteins with 0, 1, 2, 3 or more domains. For each bacterial proteome, the number of proteins in each group is present. In addition, the corresponding UniProt proteome identifier (Proteome ID), NCBI taxonomy identifier (Taxonomy ID), bacterial genus name, bacterial species name, and proteome size (proteins/proteome) are also listed.

Proteome ID	Taxonomy ID	Genus	Species	Proteome Size	No. of proteins with 0 Domain	No. of proteins with 1 Domain	No of proteins with 2 Domains	No. of proteins with 3 or More Domains
UP000000212	1234679	<i>Carnobacterium</i>	<i>maltaromaticum</i>	3539	644	1394	667	834
UP000000214	1171373	<i>Propionibacterium</i>	<i>acidipropionici</i>	3316	643	1274	592	807
UP000000229	399739	<i>Pseudomonas</i>	<i>mendocina</i>	4563	438	1924	947	1254
UP000000231	312153	<i>Polynucleobacter</i>	<i>necessarius</i>	2074	203	945	408	518
UP000000235	369723	<i>Salinispora</i>	<i>tropica</i>	4522	824	1679	868	1151
UP000000238	349521	<i>Hahella</i>	<i>chejuensis</i>	6751	1817	2297	1134	1503
UP000000239	290398	<i>Chromohalobacter</i>	<i>salexigens</i>	3298	256	1477	664	901
UP000000243	391295	<i>Streptococcus</i>	<i>suis</i>	2178	360	906	399	513
UP000000245	349163	<i>Acidiphilium</i>	<i>cryptum</i>	3521	449	1407	735	930
UP000000248	246195	<i>Dichelobacter</i>	<i>nodosus</i>	1273	138	551	274	310
UP000000256	351627	<i>Caldicellulosiruptor</i>	<i>saccharolyticus</i>	2629	366	976	531	756
UP000000260	290339	<i>Cronobacter</i>	<i>sakazakii</i>	4421	691	1816	880	1034
UP000000268	329726	<i>Acaryochloris</i>	<i>marina</i>	8172	2986	2430	1077	1679
UP000000269	350688	<i>Alkaliphilus</i>	<i>oremlandii</i>	2828	330	1106	567	825
UP000000270	438753	<i>Azorhizobium</i>	<i>caulinodans</i>	4708	497	1959	1014	1238
UP000000272	555079	<i>Thermosediminibacter</i>	<i>oceani</i>	2151	229	876	396	650
UP000000276	681645	<i>Corynebacterium</i>	<i>pseudotuberculosis</i>	2090	409	858	370	453
UP000000291	1051632	<i>Sulfobacillus</i>	<i>acidophilus</i>	3722	860	1376	678	808
UP000000310	762903	<i>Pseudopedobacter</i>	<i>saltans</i>	3780	662	1382	744	992
UP000000321	287752	<i>Aurantimonas</i>	<i>manganooxydans</i>	3625	397	1524	788	916
UP000000322	446469	<i>Sanguibacter</i>	<i>keddiei</i>	3710	565	1459	714	972
UP000000323	525904	<i>Thermobaculum</i>	<i>terrenum</i>	2827	388	1036	579	824
UP000000329	757424	<i>Herbaspirillum</i>	<i>seropedicae</i>	4732	552	1784	1055	1341
UP000000333	633147	<i>Olsenella</i>	<i>uli</i>	1739	232	720	362	425
UP000000343	1198114	<i>Granulicella</i>	<i>tundricola</i>	4514	1014	1597	828	1075
UP000000361	318586	<i>Paracoccus</i>	<i>denitrificans</i>	5019	713	2146	988	1172
UP000000362	203120	<i>Leuconostoc</i>	<i>mesenteroides</i>	2002	281	775	402	544
UP000000366	420662	<i>Methylibium</i>	<i>petroleiphilum</i>	4359	787	1697	857	1018
UP000000370	357809	<i>Clostridium</i>	<i>phytofermentans</i>	3891	554	1446	790	1101
UP000000374	391735	<i>Verminephrobacter</i>	<i>eiseniae</i>	4911	623	2065	1057	1166
UP000000376	644284	<i>Arcanobacterium</i>	<i>haemolyticum</i>	1717	272	729	303	413
UP000000377	749414	<i>Streptomyces</i>	<i>bingchenggensis</i>	10019	2000	3524	1870	2625
UP000000378	643648	<i>Syntrophothermus</i>	<i>lipocalidus</i>	2311	323	936	413	639
UP000000379	649638	<i>Truepera</i>	<i>radiovictrix</i>	2924	438	1209	546	731
UP000000383	666681	<i>Methylotenera</i>	<i>versatilis</i>	2752	328	1150	570	704
UP000000387	762948	<i>Rothia</i>	<i>dentocariosa</i>	2212	576	809	350	477
UP000000417	292459	<i>Symbiobacterium</i>	<i>thermophilum</i>	3313	540	1239	643	891

UP000000422	273121	<i>Wolinella</i>	<i>succinogenes</i>	2028	246	842	423	517
UP000000423	273119	<i>Ureaplasma</i>	<i>parvum</i>	611	159	227	98	127
UP000000425	122586	<i>Neisseria</i>	<i>meningitidis</i>	2001	398	816	333	454
UP000000429	85962	<i>Helicobacter</i>	<i>pylori</i>	1553	310	663	281	299
UP000000430	62977	<i>Acinetobacter</i>	<i>baylyi</i>	3263	452	1299	686	826
UP000000434	269800	<i>Thermobifida</i>	<i>fusca</i>	3085	466	1216	580	823
UP000000439	206672	<i>Bifidobacterium</i>	<i>longum</i>	1725	239	693	350	443
UP000000440	197221	<i>Thermosynechococcus</i>	<i>elongatus</i>	2451	361	1000	439	651
UP000000442	177437	<i>Desulfobacterium</i>	<i>autotrophicum</i>	4846	820	1754	974	1298
UP000000444	396513	<i>Staphylococcus</i>	<i>carnosus</i>	2460	274	1012	504	668
UP000000447	309801	<i>Thermomicrobium</i>	<i>roseum</i>	2858	666	965	527	700
UP000000448	598659	<i>Nautilia</i>	<i>profundicola</i>	1730	254	712	337	427
UP000000466	1117647	<i>Simiduia</i>	<i>agarivorans</i>	3812	579	1525	745	963
UP000000467	1089553	<i>Thermacetogenium</i>	<i>phaeum</i>	2803	453	1150	519	681
UP000000483	880072	<i>Desulfobacca</i>	<i>acetoxidans</i>	2859	519	1102	497	741
UP000000485	593907	<i>Cellulomonas</i>	<i>gilvus</i>	3153	522	1259	582	790
UP000000493	761193	<i>Runella</i>	<i>slithyformis</i>	5750	1295	2047	1014	1394
UP000000495	765952	<i>Parachlamydia</i>	<i>acanthamoebae</i>	2784	991	882	392	519
UP000000496	331113	<i>Simkania</i>	<i>negevensis</i>	2516	993	748	336	439
UP000000503	744872	<i>Treponema</i>	<i>caldarium</i>	2754	451	1072	527	704
UP000000504	903503	<i>Moranella</i>	<i>endobia</i>	405	0	191	100	114
UP000000517	59374	<i>Fibrobacter</i>	<i>succinogenes</i>	2871	718	1053	482	618
UP000000528	272635	<i>Mycoplasma</i>	<i>pulmonis</i>	778	219	269	135	155
UP000000529	264201	<i>Protochlamydia</i>	<i>amoebophila</i>	2023	489	680	298	412
UP000000532	300852	<i>Thermus</i>	<i>thermophilus</i>	2227	303	950	420	554
UP000000533	302409	<i>Ehrlichia</i>	<i>ruminantium</i>	948	203	386	156	203
UP000000537	312309	<i>Vibrio</i>	<i>fischeri</i>	3813	462	1540	879	932
UP000000546	259536	<i>Psychrobacter</i>	<i>arcticus</i>	2099	234	903	447	515
UP000000547	167879	<i>Colwellia</i>	<i>psychrerythraea</i>	4872	1067	1723	974	1108
UP000000550	159087	<i>Dechloromonas</i>	<i>aromatica</i>	4155	548	1669	840	1098
UP000000552	266835	<i>Rhizobium</i>	<i>loti</i>	7255	1247	2933	1387	1688
UP000000555	273068	<i>Caldanaerobacter</i>	<i>subterraneus</i>	2545	323	984	477	761
UP000000557	251221	<i>Gloeobacter</i>	<i>violaceus</i>	4406	886	1683	735	1102
UP000000562	36870	<i>Wigglesworthia</i>	<i>glossinidia</i>	617	8	295	164	150
UP000000566	435591	<i>Parabacteroides</i>	<i>distasonis</i>	3830	598	1357	826	1049
UP000000577	243231	<i>Geobacter</i>	<i>sulfurreducens</i>	3402	479	1264	647	1012
UP000000579	71421	<i>Haemophilus</i>	<i>influenzae</i>	1707	96	792	362	457
UP000000580	262316	<i>Mycobacterium</i>	<i>paratuberculosis</i>	4316	545	1812	896	1063
UP000000581	257314	<i>Lactobacillus</i>	<i>johnsonii</i>	1809	225	708	367	509
UP000000588	242619	<i>Porphyromonas</i>	<i>gingivalis</i>	1863	359	702	342	460
UP000000593	74109	<i>Photobacterium</i>	<i>profundum</i>	5328	790	2205	1110	1223
UP000000594	1392	<i>Bacillus</i>	<i>anthracis</i>	5493	1049	2183	919	1339
UP000000602	177439	<i>Desulfotalea</i>	<i>psychrophila</i>	3233	662	1192	613	766
UP000000605	272560	<i>Burkholderia</i>	<i>pseudomallei</i>	5717	669	2349	1204	1495

UP000000607	221988	<i>Mannheimia</i>	<i>succiniciproducens</i>	2367	395	921	465	586
UP000000609	272624	<i>Legionella</i>	<i>pneumophila</i>	2930	584	1106	536	704
UP000000625	83333	<i>Escherichia</i>	<i>coli</i>	4306	249	1984	943	1137
UP000000628	471856	<i>Jonesia</i>	<i>denitrificans</i>	2495	443	964	453	635
UP000000637	290340	<i>Arthrobacter</i>	<i>aureus</i>	4565	750	1718	947	1150
UP000000639	357804	<i>Psychromonas</i>	<i>ingrahamii</i>	3530	405	1503	722	900
UP000000643	360095	<i>Bartonella</i>	<i>bacilliformis</i>	1255	218	519	227	291
UP000000644	365044	<i>Polaromonas</i>	<i>naphthalenivorans</i>	4879	810	1967	943	1159
UP000000647	349124	<i>Halorhodospira</i>	<i>halophila</i>	2406	210	1015	499	682
UP000000657	326424	<i>Frankia</i>	<i>alni</i>	6710	1852	2233	1135	1457
UP000000671	234267	<i>Solibacter</i>	<i>usitatus</i>	7761	1603	2599	1368	2191
UP000000684	318167	<i>Shewanella</i>	<i>frigidimarina</i>	3990	447	1649	861	1033
UP000000718	289376	<i>Thermodesulfovibrio</i>	<i>yellowstonii</i>	1982	225	781	408	568
UP000000719	373903	<i>Halothermothrix</i>	<i>oreni</i>	2324	244	889	490	701
UP000000723	511995	<i>Azobacteroides</i>	<i>pseudotrichonymphae</i>	847	112	338	172	225
UP000000738	465515	<i>Micrococcus</i>	<i>luteus</i>	2207	319	913	425	550
UP000000739	439235	<i>Desulfatibacillum</i>	<i>alkenivorans</i>	5198	961	1729	973	1535
UP000000755	411154	<i>Gramella</i>	<i>forsetii</i>	3554	782	1315	598	859
UP000000756	380703	<i>Aeromonas</i>	<i>hydrophila</i>	4121	375	1701	907	1138
UP000000760	360106	<i>Campylobacter</i>	<i>fetus</i>	1715	257	700	340	418
UP000000771	525909	<i>Acidimicrobium</i>	<i>ferrooxidans</i>	1935	278	764	390	503
UP000000773	278197	<i>Pediococcus</i>	<i>pentosaceus</i>	1755	225	693	346	491
UP000000774	203123	<i>Oenococcus</i>	<i>oeni</i>	1682	266	645	319	452
UP000000781	444179	<i>Sulcia</i>	<i>muelleri</i>	227	8	107	50	62
UP000000784	398578	<i>Delftia</i>	<i>acidovorans</i>	5968	836	2408	1289	1435
UP000000787	316274	<i>Herpetosiphon</i>	<i>aurantiacus</i>	5254	1141	1759	846	1508
UP000000788	93059	<i>Prochlorococcus</i>	<i>marinus</i>	1855	422	790	292	351
UP000000798	224324	<i>Aquifex</i>	<i>aeolicus</i>	1553	150	630	327	446
UP000000809	272843	<i>Pasteurella</i>	<i>multocida</i>	2015	124	901	432	558
UP000000812	160492	<i>Xylella</i>	<i>fastidiosa</i>	2772	943	938	397	494
UP000000813	176299	<i>Agrobacterium</i>	<i>fabrum</i>	5344	678	2230	1069	1367
UP000000815	632	<i>Yersinia</i>	<i>pestis</i>	3909	417	1735	803	945
UP000000817	169963	<i>Listeria</i>	<i>monocytogenes</i>	2844	267	1210	555	812
UP000000822	221109	<i>Oceanobacillus</i>	<i>iheyensis</i>	3490	357	1519	698	916
UP000000841	471857	<i>Saccharomonospora</i>	<i>viridis</i>	3828	588	1491	755	994
UP000000844	446470	<i>Stackebrandtia</i>	<i>nassauensis</i>	6379	1302	2259	1228	1590
UP000000845	526218	<i>Sebaldella</i>	<i>termitidis</i>	4124	1083	1480	658	903
UP000000851	479433	<i>Catenulispora</i>	<i>acidiphila</i>	8909	1863	3062	1664	2320
UP000000852	485917	<i>Pedobacter</i>	<i>heparinus</i>	4249	727	1508	871	1143
UP000000925	583355	<i>Coralimargarita</i>	<i>akajimensis</i>	3110	692	1157	546	715
UP000000927	264731	<i>Prevotella</i>	<i>ruminicola</i>	2761	434	1061	551	715
UP000000930	749219	<i>Moraxella</i>	<i>catarrhalis</i>	1881	442	739	319	381
UP000000939	572480	<i>Arcobacter</i>	<i>nitrofigilis</i>	3125	478	1236	651	760
UP000000948	634452	<i>Acetobacter</i>	<i>pasteurianus</i>	2906	498	1160	579	669

UP000000954	469378	<i>Cryptobacterium</i>	<i>curtum</i>	1355	142	563	276	374
UP000000960	521095	<i>Atopobium</i>	<i>parvulum</i>	1353	164	516	317	356
UP000000998	351348	<i>Marinobacter</i>	<i>hydrocarbonoclasticus</i>	4170	605	1634	833	1098
UP000001007	194439	<i>Chlorobium</i>	<i>tepidum</i>	2250	511	806	383	550
UP000001010	190485	<i>Xanthomonas</i>	<i>campestris</i>	4127	581	1683	822	1040
UP000001014	99287	<i>Salmonella</i>	<i>typhimurium</i>	4533	302	2146	984	1101
UP000001023	246200	<i>Ruegeria</i>	<i>pomeroyi</i>	4269	452	1847	918	1052
UP000001025	243090	<i>Rhodopirellula</i>	<i>baltica</i>	7271	3282	1775	932	1282
UP000001029	445932	<i>Elusimicrobium</i>	<i>minutum</i>	1528	300	590	280	358
UP000001031	349741	<i>Akkermansia</i>	<i>muciniphila</i>	2137	444	776	423	494
UP000001036	498211	<i>Cellvibrio</i>	<i>japonicus</i>	3711	643	1426	693	949
UP000001052	485915	<i>Desulfohalobium</i>	<i>retbaense</i>	2500	345	945	489	721
UP000001062	717774	<i>Marinomonas</i>	<i>mediterranea</i>	4118	533	1688	868	1029
UP000001110	391009	<i>Thermosipho</i>	<i>melanesiensis</i>	1877	292	746	374	465
UP000001114	339671	<i>Actinobacillus</i>	<i>succinogenes</i>	2077	89	923	473	592
UP000001116	266940	<i>Kineococcus</i>	<i>radiotolerans</i>	4674	952	1758	803	1161
UP000001171	283942	<i>Idiomarina</i>	<i>lohiensis</i>	2608	228	1066	577	737
UP000001172	235909	<i>Geobacillus</i>	<i>kaustophilus</i>	3516	500	1439	629	948
UP000001173	264203	<i>Zymomonas</i>	<i>mobilis</i>	1779	192	770	369	448
UP000001174	177416	<i>Francisella</i>	<i>tularensis</i>	1528	231	605	333	359
UP000001176	272568	<i>Gluconacetobacter</i>	<i>diazotrophicus</i>	3783	752	1466	702	863
UP000001191	63737	<i>Nostoc</i>	<i>punctiforme</i>	6573	1525	2255	1001	1792
UP000001205	314724	<i>Borrelia</i>	<i>turicatae</i>	818	194	468	146	216
UP000001208	517418	<i>Chloroherpeton</i>	<i>thalassium</i>	2708	408	1040	472	788
UP000001213	521096	<i>Tsukamurella</i>	<i>paurometabola</i>	4170	656	1696	792	1026
UP000001219	526226	<i>Gordonia</i>	<i>bronchialis</i>	4628	850	1790	918	1070
UP000001225	340100	<i>Bordetella</i>	<i>petrii</i>	4912	469	2111	1069	1263
UP000001227	452471	<i>Amoebophilus</i>	<i>asiaticus</i>	1253	300	396	201	356
UP000001235	395494	<i>Gallionella</i>	<i>capsiferriformans</i>	2853	446	1094	571	742
UP000001299	515622	<i>Butyrivibrio</i>	<i>proteoclasticus</i>	3799	939	1280	660	920
UP000001302	314260	<i>Parvularcula</i>	<i>bermudensis</i>	2687	431	1175	484	597
UP000001303	871271	<i>Zinderia</i>	<i>insecticola</i>	206	10	117	35	44
UP000001306	281090	<i>Leifsonia</i>	<i>xyli</i>	2001	376	819	376	430
UP000001318	31964	<i>Clavibacter</i>	<i>michiganensis</i>	3058	630	1172	512	744
UP000001319	334413	<i>Fingoldia</i>	<i>magna</i>	1813	278	713	320	502
UP000001332	864702	<i>Oscillatoriales</i>	<i>cyanobacterium</i>	4673	1096	1733	699	1145
UP000001351	378806	<i>Stigmatella</i>	<i>aurantiaca</i>	8307	2210	2606	1406	2085
UP000001362	243159	<i>Acidithiobacillus</i>	<i>ferrooxidans</i>	3120	800	1152	498	670
UP000001366	123214	<i>Persephonella</i>	<i>marina</i>	2048	362	753	391	542
UP000001369	204536	<i>Sulfurihydrogenibium</i>	<i>azoreense</i>	1708	226	665	367	450
UP000001377	479437	<i>Eggerthella</i>	<i>lenta</i>	3054	479	1152	553	870
UP000001382	526225	<i>Geodermatophilus</i>	<i>obscurus</i>	4795	911	1792	900	1192
UP000001383	458233	<i>Macrococcus</i>	<i>caseolyticus</i>	2059	203	813	449	594
UP000001399	648757	<i>Rhodomicrobium</i>	<i>vanniellii</i>	3513	620	1401	624	868

UP000001405	713887	<i>Atelocyanobacterium</i>	<i>thalassa</i>	1199	131	535	221	312
UP000001408	189518	<i>Leptospira</i>	<i>interrogans</i>	3676	1029	1311	592	744
UP000001414	226186	<i>Bacteroides</i>	<i>thetaiotaomicron</i>	4782	765	1653	1001	1363
UP000001415	226185	<i>Enterococcus</i>	<i>faecalis</i>	3240	633	1288	557	762
UP000001416	228410	<i>Nitrosomonas</i>	<i>europaea</i>	2375	252	972	491	660
UP000001424	243365	<i>Chromobacterium</i>	<i>violaceum</i>	4397	698	1718	907	1074
UP000001436	267608	<i>Ralstonia</i>	<i>solanacearum</i>	5002	819	1919	1048	1216
UP000001441	572477	<i>Allochromatium</i>	<i>vinosum</i>	3211	406	1321	617	867
UP000001453	525284	<i>Gardnerella</i>	<i>vaginalis</i>	1365	253	544	251	317
UP000001476	515620	<i>Eubacterium</i>	<i>eligens</i>	2761	586	988	521	666
UP000001477	515619	<i>Agathobacter</i>	<i>rectalis</i>	3545	994	1170	593	788
UP000001485	634503	<i>Edwardsiella</i>	<i>ictaluri</i>	3686	656	1514	724	792
UP000001492	573065	<i>Asticcacaulis</i>	<i>excentricus</i>	3743	602	1540	755	846
UP000001505	716544	<i>Waddlia</i>	<i>chondrophila</i>	1919	542	647	337	393
UP000001508	589865	<i>Desulfurivibrio</i>	<i>alkaliphilus</i>	2595	317	980	555	743
UP000001510	449447	<i>Microcystis</i>	<i>aeruginosa</i>	5981	2064	1988	764	1165
UP000001520	639282	<i>Deferribacter</i>	<i>desulfuricans</i>	2338	333	866	483	656
UP000001551	663278	<i>Ethanoligenens</i>	<i>harbinense</i>	2663	408	1049	502	704
UP000001556	349161	<i>Desulfotomaculum</i>	<i>reducens</i>	3220	449	1260	608	903
UP000001565	357244	<i>Orientia</i>	<i>tsutsugamushi</i>	966	207	390	151	218
UP000001591	414684	<i>Rhodospirillum</i>	<i>centenum</i>	3984	742	1527	738	977
UP000001601	398720	<i>Leeuwenhoekella</i>	<i>blandensis</i>	3687	720	1371	663	933
UP000001619	522306	<i>Accumulibacter</i>	<i>phosphatis</i>	4438	683	1802	860	1093
UP000001625	580332	<i>Sideroxydans</i>	<i>lithotrophicus</i>	2977	484	1200	556	737
UP000001635	880070	<i>Cyclobacterium</i>	<i>marinum</i>	4983	1083	1761	967	1172
UP000001654	655815	<i>Zunongwangia</i>	<i>profunda</i>	4633	1129	1541	821	1142
UP000001660	330214	<i>Nitrospira</i>	<i>defluvii</i>	4263	1138	1423	692	1010
UP000001661	574087	<i>Acetohalobium</i>	<i>arabaticum</i>	2276	209	939	436	692
UP000001681	262543	<i>Exiguobacterium</i>	<i>sibiricum</i>	3005	430	1133	567	875
UP000001683	457570	<i>Natranaerobius</i>	<i>thermophilus</i>	2847	409	1090	538	810
UP000001693	395495	<i>Leptothrix</i>	<i>cholodnii</i>	4343	498	1788	939	1118
UP000001695	395963	<i>Beijerinckia</i>	<i>indica</i>	3774	641	1512	677	944
UP000001700	515618	<i>Riesia</i>	<i>pediculicola</i>	540	83	219	110	128
UP000001702	706191	<i>Pantoea</i>	<i>ananatis</i>	4241	347	1866	913	1115
UP000001726	338565	<i>Erwinia</i>	<i>tasmaniensis</i>	3618	407	1625	731	855
UP000001732	309798	<i>Coprothermobacter</i>	<i>proteolyticus</i>	1481	251	572	285	373
UP000001784	335543	<i>Syntrophobacter</i>	<i>fumaroxidans</i>	4012	736	1436	754	1086
UP000001803	565034	<i>Brachyspira</i>	<i>hyodysenteriae</i>	2642	553	942	488	659
UP000001816	190650	<i>Caulobacter</i>	<i>crescentus</i>	3720	603	1468	743	906
UP000001822	269798	<i>Cytophaga</i>	<i>hutchinsonii</i>	3771	987	1359	589	836
UP000001844	472759	<i>Nitrosococcus</i>	<i>halophilus</i>	3770	694	1499	668	909
UP000001868	450851	<i>Phenylobacterium</i>	<i>zucineum</i>	3838	352	1634	802	1050
UP000001870	314275	<i>Alteromonas</i>	<i>mediterranea</i>	3938	677	1527	792	939
UP000001877	358681	<i>Brevibacillus</i>	<i>brevis</i>	5887	1032	2110	1117	1628

UP000001880	502025	<i>Haliangium</i>	<i>ochraceum</i>	6684	1780	2075	1107	1722
UP000001887	530564	<i>Pirellula</i>	<i>staleyii</i>	4711	1329	1525	771	1086
UP000001902	591001	<i>Acidaminococcus</i>	<i>fermentans</i>	2016	222	789	455	550
UP000001908	644283	<i>Micromonospora</i>	<i>aurantiaca</i>	6204	1237	2274	1128	1565
UP000001910	523794	<i>Leptotrichia</i>	<i>buccalis</i>	2218	465	820	388	545
UP000001916	526227	<i>Meiothermus</i>	<i>silvanus</i>	3383	624	1258	606	895
UP000001917	521098	<i>Alicyclobacillus</i>	<i>acidocaldarius</i>	3059	565	1133	574	787
UP000001918	471852	<i>Thermomonospora</i>	<i>curvata</i>	4888	946	1859	884	1199
UP000001919	446465	<i>Brachybacterium</i>	<i>faecium</i>	3062	390	1284	622	766
UP000001932	343509	<i>Sodalis</i>	<i>glossinidius</i>	2490	273	1203	478	536
UP000001933	56780	<i>Syntrophus</i>	<i>aciditrophicus</i>	3145	751	1033	566	795
UP000001935	290397	<i>Anaeromyxobacter</i>	<i>dehalogenans</i>	4345	764	1601	823	1157
UP000001942	222891	<i>Neorickettsia</i>	<i>sennetsu</i>	932	295	332	124	181
UP000001943	212042	<i>Anaplasma</i>	<i>phagocytophilum</i>	1330	530	459	130	211
UP000001946	138119	<i>Desulfitobacterium</i>	<i>hafniense</i>	5014	664	1859	1006	1485
UP000001947	203122	<i>Saccharophagus</i>	<i>degradans</i>	3999	649	1563	790	997
UP000001953	323097	<i>Nitrobacter</i>	<i>hamburgensis</i>	4243	929	1672	755	887
UP000001955	630626	<i>Shimwellia</i>	<i>blattae</i>	3870	345	1723	829	973
UP000001959	228405	<i>Hyphomonas</i>	<i>neptunium</i>	3499	545	1432	692	830
UP000001962	187272	<i>Alkalilimnicola</i>	<i>ehrichii</i>	2862	273	1169	631	789
UP000001963	391165	<i>Granulibacter</i>	<i>bethesdensis</i>	2430	465	1014	461	625
UP000001964	394221	<i>Maricaulis</i>	<i>maris</i>	3060	460	1244	635	721
UP000001968	335541	<i>Syntrophomonas</i>	<i>wolfei</i>	2473	295	994	504	680
UP000001978	272563	<i>Peptoclostridium</i>	<i>difficile</i>	3762	531	1414	714	1102
UP000001981	342610	<i>Pseudoalteromonas</i>	<i>atlantica</i>	4271	521	1713	933	1104
UP000001989	392499	<i>Sphingomonas</i>	<i>wittichii</i>	5313	677	2080	1252	1304
UP000002007	288705	<i>Renibacterium</i>	<i>salmoninarum</i>	3421	678	1427	582	734
UP000002008	324602	<i>Chloroflexus</i>	<i>aurantiacus</i>	3850	536	1415	729	1170
UP000002010	557598	<i>Laribacter</i>	<i>hongkongensis</i>	3208	638	1282	568	720
UP000002011	471854	<i>Dyadobacter</i>	<i>fermentans</i>	5703	1144	1960	1113	1486
UP000002012	522772	<i>Denitrovibrio</i>	<i>acetiphilus</i>	2901	410	1076	588	827
UP000002016	416591	<i>Pseudothermotoga</i>	<i>lettingae</i>	2040	190	826	436	588
UP000002019	459349	<i>Cloacimonas</i>	<i>acidaminovorans</i>	1813	418	613	327	455
UP000002020	482235	<i>Phytoplasma</i>	<i>mali</i>	448	101	158	75	114
UP000002026	471855	<i>Slackia</i>	<i>heliotrinireducens</i>	2750	477	1050	510	713
UP000002027	479434	<i>Sphaerobacter</i>	<i>thermophilus</i>	3471	519	1260	709	983
UP000002028	504472	<i>Spirosoma</i>	<i>linguale</i>	6867	1536	2413	1185	1733
UP000002029	479432	<i>Streptosporangium</i>	<i>roseum</i>	8955	1680	3126	1780	2369
UP000002030	525903	<i>Thermanaerovibrio</i>	<i>acidaminovorans</i>	1737	173	744	366	454
UP000002043	638303	<i>Thermocrinis</i>	<i>albus</i>	1592	194	664	307	427
UP000002045	406818	<i>Xenorhabdus</i>	<i>bovienii</i>	4102	971	1612	698	821
UP000002072	519441	<i>Streptobacillus</i>	<i>moniliformis</i>	1431	294	525	244	368
UP000002139	448385	<i>Sorangium</i>	<i>cellulosum</i>	9320	2725	2872	1428	2295
UP000002156	340099	<i>Thermoanaerobacter</i>	<i>pseudethanolicus</i>	2193	192	889	433	679

UP000002171	207954	<i>Neptuniibacter</i>	<i>caesariensis</i>	3687	483	1471	753	980
UP000002185	75379	<i>Thiomonas</i>	<i>intermedia</i>	3134	323	1347	632	832
UP000002191	643562	<i>Desulfovibrio</i>	<i>aespoeensis</i>	3269	521	1213	647	888
UP000002192	203907	<i>Blochmannia</i>	<i>floridanus</i>	583	1	286	149	147
UP000002200	203267	<i>Tropheryma</i>	<i>whipplei</i>	805	115	346	145	199
UP000002204	234621	<i>Rhodococcus</i>	<i>erythropolis</i>	6424	1064	2486	1301	1573
UP000002207	240015	<i>Acidobacterium</i>	<i>capsulatum</i>	3363	678	1164	606	915
UP000002208	546414	<i>Deinococcus</i>	<i>deserti</i>	3459	651	1315	624	869
UP000002209	379066	<i>Gemmatimonas</i>	<i>aurantiaca</i>	3932	748	1448	759	977
UP000002213	446462	<i>Actinosynnema</i>	<i>mirum</i>	6912	1407	2526	1264	1715
UP000002215	485918	<i>Chitinophaga</i>	<i>pinensis</i>	7179	1590	2270	1375	1944
UP000002216	525897	<i>Desulfomicrobium</i>	<i>baculatum</i>	3421	444	1336	651	990
UP000002218	479431	<i>Nakamurella</i>	<i>multipartita</i>	5123	946	1940	990	1247
UP000002219	446468	<i>Nocardiosis</i>	<i>dassonvillei</i>	5497	945	2091	1086	1375
UP000002220	521674	<i>Planctopirus</i>	<i>limnophila</i>	4258	1288	1364	726	880
UP000002221	518766	<i>Rhodothermus</i>	<i>marinus</i>	2861	415	1068	540	838
UP000002222	525898	<i>Sulfurospirillum</i>	<i>deleyianum</i>	2243	324	905	468	546
UP000002247	640132	<i>Segniliparus</i>	<i>rotundus</i>	3001	749	1149	491	612
UP000002255	446471	<i>Xylanimonas</i>	<i>cellulosilytica</i>	3441	625	1370	651	795
UP000002257	395965	<i>Methylocella</i>	<i>silvestris</i>	3816	702	1497	742	875
UP000002294	525919	<i>Anaerococcus</i>	<i>prevotii</i>	1795	245	686	333	531
UP000002297	216432	<i>Croceibacter</i>	<i>atlanticus</i>	2702	528	1023	479	672
UP000002301	439375	<i>Ochrobactrum</i>	<i>anthropi</i>	4757	583	2029	913	1232
UP000002318	573413	<i>Spirochaeta</i>	<i>smaragdinae</i>	4211	598	1625	877	1111
UP000002334	572265	<i>Hamiltonella</i>	<i>defensa</i>	2045	565	812	323	345
UP000002349	552811	<i>Dehalogenimonas</i>	<i>lykanthroporepellens</i>	1619	283	614	294	428
UP000002360	688245	<i>Comamonas</i>	<i>testosteroni</i>	4780	610	1938	1080	1152
UP000002361	272942	<i>Rhodobacter</i>	<i>capsulatus</i>	3632	579	1543	679	831
UP000002366	572547	<i>Aminobacterium</i>	<i>colombiense</i>	1872	211	771	403	487
UP000002368	562970	<i>Kyrpidia</i>	<i>tusciae</i>	3135	410	1262	624	839
UP000002377	635013	<i>Thermincola</i>	<i>potens</i>	2908	389	1151	524	844
UP000002382	521045	<i>Kosmotoga</i>	<i>olearia</i>	2087	288	794	418	587
UP000002383	396588	<i>Thioalkalivibrio</i>	<i>sulfidiphilus</i>	3272	445	1391	608	828
UP000002402	246197	<i>Myxococcus</i>	<i>xanthus</i>	7314	1948	2337	1227	1802
UP000002415	381764	<i>Fervidobacterium</i>	<i>nodosum</i>	1725	195	674	345	511
UP000002417	78245	<i>Xanthobacter</i>	<i>autotrophicus</i>	4971	710	2070	949	1242
UP000002424	322710	<i>Azotobacter</i>	<i>vinelandii</i>	4990	849	1968	954	1219
UP000002427	374463	<i>Baumannia</i>	<i>cicadellinicola</i>	595	6	287	131	171
UP000002429	266264	<i>Cupriavidus</i>	<i>metallidurans</i>	6364	1107	2420	1339	1498
UP000002430	363253	<i>Lawsonia</i>	<i>intracellularis</i>	1342	172	558	242	369
UP000002432	204669	<i>Koribacter</i>	<i>versatilis</i>	4771	977	1625	892	1277
UP000002440	265072	<i>Methylobacillus</i>	<i>flagellatus</i>	2609	293	1091	522	703
UP000002480	272947	<i>Rickettsia</i>	<i>prowazekii</i>	834	61	388	155	230
UP000002514	243265	<i>Photorhabdus</i>	<i>luminescens</i>	4556	792	1961	793	1010

UP000002523	262768	<i>Onion</i>	<i>yellow</i> s	730	199	271	101	159
UP000002526	224911	<i>Bradyrhizobium</i>	<i>diazoefficiens</i>	8253	1469	3181	1589	2014
UP000002528	335992	<i>Pelagibacter</i>	<i>ubique</i>	1354	125	617	267	345
UP000002534	338963	<i>Pelobacter</i>	<i>carbinolicus</i>	3292	519	1215	659	899
UP000002569	668336	<i>Aggregatibacter</i>	<i>actinomycetemcomitans</i>	2276	184	882	408	499
UP000002572	653733	<i>Desulfurispirillum</i>	<i>indicum</i>	2551	340	986	495	730
UP000002574	608538	<i>Hydrogenobacter</i>	<i>thermophilus</i>	1892	307	749	352	484
UP000002586	156889	<i>Magnetococcus</i>	<i>marinus</i>	3594	719	1261	673	941
UP000002587	413404	<i>Ruthia</i>	<i>magnifica</i>	976	62	440	199	275
UP000002596	397945	<i>Acidovorax</i>	<i>citrulli</i>	4602	789	1798	927	1088
UP000002620	429009	<i>Ammonifex</i>	<i>degensii</i>	2077	309	797	399	572
UP000002663	945021	<i>Tetragenococcus</i>	<i>halophilus</i>	2507	312	1007	481	707
UP000002671	227377	<i>Coxiella</i>	<i>burnetii</i>	1815	456	639	315	402
UP000002696	633149	<i>Brevundimonas</i>	<i>subvibrioides</i>	3326	618	1385	605	718
UP000002706	246194	<i>Carboxydotherrus</i>	<i>hydrogenoformans</i>	2615	480	966	469	700
UP000002713	317025	<i>Thiomicrospira</i>	<i>crunogena</i>	2187	214	927	449	597
UP000002714	326298	<i>Sulfurimonas</i>	<i>denitrificans</i>	2084	305	825	436	518
UP000002716	300267	<i>Shigella</i>	<i>dysenteriae</i>	3897	338	1830	747	982
UP000002717	1140	<i>Synechococcus</i>	<i>elongatus</i>	2657	423	1121	479	634
UP000002718	323848	<i>Nitrosospira</i>	<i>multiformis</i>	2732	398	1092	568	674
UP000002719	359391	<i>Brucella</i>	<i>abortus</i>	3022	489	1210	574	750
UP000002724	324925	<i>Pelodictyon</i>	<i>phaeoelathratiforme</i>	2685	415	1085	502	683
UP000002725	290512	<i>Prosthecochloris</i>	<i>aestuarii</i>	2319	352	911	451	605
UP000002741	573234	<i>Hodgkinia</i>	<i>cicadicola</i>	169	45	87	22	15
UP000002743	582744	<i>Methylovorus</i>	<i>glucosetrophus</i>	2907	449	1121	582	755
UP000002745	582402	<i>Hirschia</i>	<i>baltica</i>	3187	469	1286	693	739
UP000002774	714943	<i>Mucilaginibacter</i>	<i>paludis</i>	6864	1843	2103	1218	1700
UP000002875	929562	<i>Emticicia</i>	<i>oligotrophica</i>	4251	725	1608	782	1136
UP000002881	660470	<i>Mesotoga</i>	<i>prima</i>	2499	422	974	493	610
UP000002892	646529	<i>Desulfosporosinus</i>	<i>acidiphilus</i>	4469	865	1525	835	1244
UP000002914	391619	<i>Phaeobacter</i>	<i>inhibens</i>	3853	460	1680	771	942
UP000002931	314271	<i>Maritimibacter</i>	<i>alkaliphilus</i>	4692	962	1876	864	990
UP000002938	702450	<i>Turcibacter</i>	<i>sanguinis</i>	2779	429	1057	522	771
UP000002939	626369	<i>Granulicatella</i>	<i>elegans</i>	1562	146	656	301	459
UP000002941	1125718	<i>Actinomyces</i>	<i>massiliensis</i>	3129	821	1148	555	605
UP000002945	391587	<i>Kordia</i>	<i>algicida</i>	4477	1463	1451	673	890
UP000002949	1082933	<i>Mesorhizobium</i>	<i>amorphae</i>	7083	1239	2843	1352	1649
UP000002975	469605	<i>Fusobacterium</i>	<i>gonidiaformans</i>	1890	353	726	326	485
UP000003009	629741	<i>Kingella</i>	<i>oralis</i>	3160	1322	990	353	495
UP000003011	679200	<i>Johnsonella</i>	<i>ignava</i>	2284	384	880	443	577
UP000003045	871571	<i>Mobiluncus</i>	<i>mulieris</i>	2379	683	857	401	438
UP000003053	313594	<i>Polaribacter</i>	<i>irgensii</i>	2556	570	956	438	592
UP000003058	765914	<i>Thiorhodospira</i>	<i>sibirica</i>	2933	455	1182	560	736
UP000003087	344747	<i>Gimesia</i>	<i>maris</i>	6463	2057	1919	1063	1424

UP000003111	585531	<i>Aeromicrobium</i>	<i>marinum</i>	3077	549	1206	537	785
UP000003195	706434	<i>Megasphaera</i>	<i>micronuciformis</i>	1771	289	694	377	411
UP000003226	1163407	<i>Rhodanobacter</i>	<i>spathiphylli</i>	3438	457	1406	692	883
UP000003240	1009370	<i>Acetonema</i>	<i>longum</i>	4283	851	1636	759	1037
UP000003244	596315	<i>Peptostreptococcus</i>	<i>stomatis</i>	1600	117	611	342	530
UP000003254	471875	<i>Ruminococcus</i>	<i>lactaris</i>	2706	666	939	455	646
UP000003257	391624	<i>Oceanibulbus</i>	<i>indolifex</i>	4147	682	1779	748	938
UP000003277	742743	<i>Dialister</i>	<i>succinatiphilus</i>	2140	440	812	404	484
UP000003280	862517	<i>Peptoniphilus</i>	<i>duerdenii</i>	1987	325	790	347	525
UP000003295	521003	<i>Collinsella</i>	<i>intestinalis</i>	1783	431	643	325	384
UP000003374	314278	<i>Nitrococcus</i>	<i>mobilis</i>	3484	668	1475	581	760
UP000003438	411471	<i>Subdoligranulum</i>	<i>variabile</i>	3378	889	1134	589	766
UP000003460	626522	<i>Alloprevotella</i>	<i>tannerae</i>	2806	1168	808	364	466
UP000003494	626523	<i>Shuttleworthia</i>	<i>satelles</i>	2247	620	751	357	519
UP000003544	1026882	<i>Methylophaga</i>	<i>aminisulfivorans</i>	3174	467	1237	634	836
UP000003586	929713	<i>Niabella</i>	<i>solis</i>	4110	936	1475	740	959
UP000003599	883103	<i>Dolosigranulum</i>	<i>pigrum</i>	1691	207	694	325	465
UP000003635	314256	<i>Oceanicola</i>	<i>granulosus</i>	3791	491	1650	769	881
UP000003639	411467	<i>Pseudoflavonifractor</i>	<i>capillosus</i>	4804	1697	1434	678	995
UP000003671	500635	<i>Mitsuokella</i>	<i>multacida</i>	2558	533	902	464	659
UP000003688	320771	<i>Pedosphaera</i>	<i>parvula</i>	6492	2097	1921	953	1521
UP000003701	585503	<i>Selenomonas</i>	<i>noxia</i>	2020	313	811	401	495
UP000003704	1172194	<i>Hydrocarboniphaga</i>	<i>effusa</i>	4474	795	1611	926	1142
UP000003730	1046627	<i>Bizionia</i>	<i>argentiniensis</i>	3095	746	1090	542	717
UP000003764	655812	<i>Aerococcus</i>	<i>viridans</i>	1929	235	792	384	518
UP000003803	445972	<i>Anaerotruncus</i>	<i>colithominis</i>	4421	1571	1408	628	814
UP000003806	885272	<i>Jonquetella</i>	<i>anthropi</i>	1508	153	663	314	378
UP000003835	118168	<i>Coleofasciculus</i>	<i>chthonoplastes</i>	8193	3170	2408	934	1681
UP000003844	865937	<i>Gillisia</i>	<i>limnaea</i>	3411	644	1314	588	865
UP000003900	1131935	<i>Paenibacillus</i>	<i>dendritiformis</i>	5660	921	2131	1067	1541
UP000003919	388413	<i>Algoriphagus</i>	<i>machipongonensis</i>	3932	616	1549	756	1011
UP000003922	165597	<i>Crocospaera</i>	<i>watsonii</i>	5659	1141	2386	1039	1093
UP000003947	864069	<i>Microvirga</i>	<i>lotononidis</i>	6918	1509	2540	1333	1536
UP000003959	489825	<i>Moorea</i>	<i>producens</i>	7382	2538	2313	954	1577
UP000004057	570509	<i>Spiroplasma</i>	<i>melliferum</i>	1154	431	357	171	195
UP000004095	313606	<i>Microscilla</i>	<i>marina</i>	8248	3381	2135	1042	1690
UP000004097	706433	<i>Solobacterium</i>	<i>moorei</i>	2034	363	799	354	518
UP000004121	585501	<i>Oribacterium</i>	<i>sinus</i>	2638	642	960	494	542
UP000004165	910954	<i>Dietzia</i>	<i>cinnamea</i>	3537	662	1473	625	777
UP000004169	1150626	<i>Phaeospirillum</i>	<i>molischianum</i>	3771	897	1376	638	860
UP000004191	883114	<i>Helcococcus</i>	<i>kunzii</i>	1876	294	737	367	478
UP000004200	765913	<i>Thiorhodococcus</i>	<i>drewsii</i>	4731	728	1924	890	1189
UP000004221	1129897	<i>Nitrolancea</i>	<i>hollandica</i>	3969	1533	1177	526	733
UP000004263	207949	<i>Bermanella</i>	<i>marisrubri</i>	3303	538	1264	672	829

UP000004291	411684	<i>Hoeflea</i>	<i>phototrophica</i>	4185	511	1803	869	1002
UP000004310	314231	<i>Fulvimarina</i>	<i>pelagi</i>	3739	721	1567	676	775
UP000004315	518637	<i>Holdemanella</i>	<i>biformis</i>	2528	536	932	479	581
UP000004324	1149862	<i>Pelosinus</i>	<i>fermentans</i>	4690	731	1762	898	1299
UP000004358	314230	<i>Blastopirellula</i>	<i>marina</i>	6010	2066	1752	1000	1192
UP000004367	1089455	<i>Mobilicoccus</i>	<i>pelagi</i>	3112	542	1241	610	719
UP000004374	562729	<i>Rheinheimera</i>	<i>nanhaiensis</i>	3730	660	1429	736	905
UP000004459	411475	<i>Flavonifractor</i>	<i>plautii</i>	4278	1320	1422	672	864
UP000004465	883111	<i>Facklamia</i>	<i>hominis</i>	1717	213	703	324	477
UP000004474	1210046	<i>Janibacter</i>	<i>hoylei</i>	3070	596	1247	542	685
UP000004478	1225176	<i>Cecemia</i>	<i>lonarensis</i>	4213	897	1600	757	959
UP000004507	314232	<i>Loktanela</i>	<i>vestfoldensis</i>	3061	452	1299	601	709
UP000004508	485913	<i>Ktedonobacter</i>	<i>racemifer</i>	11211	3281	3085	1817	3028
UP000004510	742159	<i>Achromobacter</i>	<i>piechaudii</i>	5755	751	2309	1233	1462
UP000004528	585506	<i>Weissella</i>	<i>paramesenteroides</i>	1952	300	762	379	511
UP000004547	1160710	<i>Microbacterium</i>	<i>laevaniformans</i>	3249	683	1263	574	729
UP000004619	411483	<i>Faecalibacterium</i>	<i>prausnitzii</i>	3472	1022	1227	546	677
UP000004622	1189611	<i>Nitratireductor</i>	<i>aquibiodomus</i>	4240	508	1931	830	971
UP000004664	697282	<i>Methylobacter</i>	<i>tundripaludum</i>	4194	794	1639	751	1010
UP000004671	880073	<i>Caldithrix</i>	<i>abyssi</i>	3674	616	1242	727	1089
UP000004685	575590	<i>Bacteroidetes</i>	<i>oral</i>	1854	417	696	304	437
UP000004690	926559	<i>Joostella</i>	<i>marina</i>	3783	740	1384	717	942
UP000004699	565045	<i>Luminiphilus</i>	<i>syltensis</i>	2923	425	1141	629	728
UP000004703	244592	<i>Labrenzia</i>	<i>alexandrii</i>	5363	1031	2094	1040	1198
UP000004728	983920	<i>Novosphingobium</i>	<i>nitrogenifigens</i>	3800	609	1514	785	892
UP000004750	797473	<i>Cardiobacterium</i>	<i>valvarum</i>	3026	1002	1100	417	507
UP000004754	887929	<i>Pseudoramibacter</i>	<i>alactolyticus</i>	2514	620	885	435	574
UP000004793	511051	<i>Caldisericum</i>	<i>exile</i>	1566	233	606	310	417
UP000004913	742766	<i>Dysgonomonas</i>	<i>gadei</i>	4153	775	1482	828	1068
UP000004923	626939	<i>Phascolarctobacterium</i>	<i>succinatutens</i>	2148	386	841	393	528
UP000004946	864564	<i>Parascardovia</i>	<i>denticolens</i>	1679	417	627	281	354
UP000004947	313628	<i>Lentisphaera</i>	<i>araneosa</i>	4982	1266	1668	958	1090
UP000004956	762967	<i>Sutterella</i>	<i>parvirubra</i>	2483	664	914	409	496
UP000004968	566550	<i>Hungatella</i>	<i>hathewayi</i>	7571	2178	2654	1268	1471
UP000005017	679192	<i>Bulleidia</i>	<i>extracta</i>	1415	270	546	242	357
UP000005019	1000565	<i>Methyloversatilis</i>	<i>universalis</i>	3919	597	1569	757	996
UP000005089	556269	<i>Oxalobacter</i>	<i>formigenes</i>	2076	256	858	399	563
UP000005090	686340	<i>Methylomicrobium</i>	<i>album</i>	3738	656	1501	686	895
UP000005096	584708	<i>Aminomonas</i>	<i>paucivorans</i>	2391	266	987	517	621
UP000005139	401526	<i>Thermosinus</i>	<i>carboxydivorans</i>	2738	260	1188	555	735
UP000005143	1097667	<i>Patulibacter</i>	<i>medicamentivorans</i>	4372	935	1564	850	1023
UP000005178	445971	<i>Anaerofustis</i>	<i>stercorihominis</i>	2331	463	843	402	623
UP000005219	693746	<i>Oscillibacter</i>	<i>valericigenes</i>	4593	1243	1616	755	979
UP000005234	767434	<i>Frateuria</i>	<i>aurantia</i>	3098	383	1260	679	776

UP000005258	1110502	<i>Tistrella</i>	<i>mobilis</i>	5778	696	2416	1201	1465
UP000005267	1036672	<i>Advenella</i>	<i>kashmirensis</i>	3933	582	1785	772	794
UP000005275	765910	<i>Marichromatium</i>	<i>purpuratum</i>	3249	401	1344	623	881
UP000005297	314345	<i>Mariprofundus</i>	<i>ferrooxydans</i>	2856	537	1117	518	684
UP000005307	391626	<i>Octadecabacter</i>	<i>antarcticus</i>	4327	818	1776	854	879
UP000005316	1027292	<i>Sporosarcina</i>	<i>newyorkensis</i>	3825	698	1505	704	918
UP000005317	870187	<i>Thiothrix</i>	<i>nivea</i>	4218	788	1662	790	978
UP000005324	525371	<i>Roseomonas</i>	<i>cervicalis</i>	4774	940	2026	845	963
UP000005380	717772	<i>Thioalkalimicrobium</i>	<i>aerophilum</i>	2067	250	851	418	548
UP000005436	203275	<i>Tannerella</i>	<i>forsythia</i>	2978	876	923	526	653
UP000005438	700598	<i>Niastella</i>	<i>koreensis</i>	7171	1660	2368	1276	1867
UP000005459	768671	<i>Thiocapsa</i>	<i>marina</i>	4915	976	1934	865	1140
UP000005481	861450	<i>Anaeroglobus</i>	<i>geminatus</i>	2148	475	846	412	415
UP000005496	555779	<i>Desulfonatrosospira</i>	<i>thiodismutans</i>	3577	764	1368	617	828
UP000005551	1189621	<i>Nitritalea</i>	<i>halalkaliphila</i>	3102	873	1182	466	581
UP000005561	478749	<i>Marvinbryantia</i>	<i>formatexigens</i>	4894	1472	1549	828	1045
UP000005566	1086011	<i>Flavobacterium</i>	<i>frigoris</i>	3590	838	1244	635	873
UP000005631	926562	<i>Owenweeksia</i>	<i>hongkongensis</i>	3471	813	1231	605	822
UP000005632	158190	<i>Sphaerochaeta</i>	<i>pleomorpha</i>	3150	407	1256	666	821
UP000005633	640081	<i>Dechlorosoma</i>	<i>suillum</i>	3432	405	1372	721	934
UP000005667	862719	<i>Azospirillum</i>	<i>lipoferum</i>	6062	1133	2222	1105	1602
UP000005695	281689	<i>Desulfuromonas</i>	<i>acetoxidans</i>	3204	435	1224	634	911
UP000005707	1033810	<i>Haloplasma</i>	<i>contractile</i>	3019	652	1088	521	758
UP000005713	388399	<i>Sagittula</i>	<i>stellata</i>	5025	860	2086	978	1101
UP000005714	585530	<i>Brevibacterium</i>	<i>mcbrellneri</i>	2432	434	975	468	555
UP000005737	929563	<i>Leptonema</i>	<i>illini</i>	4129	1059	1479	684	907
UP000005744	395493	<i>Beggiatoa</i>	<i>alba</i>	3440	542	1294	632	972
UP000005777	641146	<i>Scardovia</i>	<i>inopinata</i>	1482	251	571	306	354
UP000005778	879212	<i>Desulfobacter</i>	<i>postgatei</i>	3396	586	1291	619	900
UP000005785	929704	<i>Myroides</i>	<i>odoratus</i>	3687	986	1265	620	816
UP000005801	391625	<i>Plesiocystis</i>	<i>pacifica</i>	8437	3128	2398	1197	1714
UP000005824	497964	<i>Chthoniobacter</i>	<i>flavus</i>	6705	2048	2207	1005	1445
UP000005837	546274	<i>Eikenella</i>	<i>corrodens</i>	2627	939	866	378	444
UP000005868	580340	<i>Thermovirga</i>	<i>lienii</i>	1853	159	783	393	518
UP000005870	1045855	<i>Pseudoxanthomonas</i>	<i>spadix</i>	3147	408	1333	615	791
UP000005938	946077	<i>Imtechella</i>	<i>halotolerans</i>	2694	427	1005	542	720
UP000005939	1088868	<i>Commensalibacter</i>	<i>intestini</i>	2209	414	878	400	517
UP000005950	545696	<i>Holdemania</i>	<i>filiformis</i>	4221	1215	1393	686	927
UP000005952	670307	<i>Hyphomicrobium</i>	<i>denitrificans</i>	3832	955	1462	625	790
UP000005953	314283	<i>Reinekea</i>	<i>blandensis</i>	4236	705	1638	826	1067
UP000005954	89187	<i>Roseovarius</i>	<i>nubinhbens</i>	3545	498	1537	702	808
UP000005990	908337	<i>Eremococcus</i>	<i>coleocola</i>	1720	219	696	338	467
UP000006004	546270	<i>Gemella</i>	<i>haemohysans</i>	1709	245	676	319	469
UP000006008	742725	<i>Alistipes</i>	<i>indistinctus</i>	2348	411	857	480	600

UP000006034	563192	<i>Bilophila</i>	<i>wadsworthia</i>	3779	768	1413	688	910
UP000006048	869212	<i>Turneriella</i>	<i>parva</i>	4092	1122	1530	637	803
UP000006049	746697	<i>Aequorivita</i>	<i>sublithincola</i>	3134	653	1189	530	762
UP000006050	866536	<i>Belliella</i>	<i>baltica</i>	3609	800	1306	652	851
UP000006051	867902	<i>Ornithobacterium</i>	<i>rhinotracheale</i>	2138	509	781	368	480
UP000006054	880071	<i>Flexibacter</i>	<i>litoralis</i>	3832	1215	1224	565	828
UP000006055	706587	<i>Desulfomonile</i>	<i>tiedjei</i>	5412	1330	1735	906	1441
UP000006056	926566	<i>Terriglobus</i>	<i>roseus</i>	3936	785	1399	738	1014
UP000006061	891968	<i>Anaerobaculum</i>	<i>mobile</i>	2004	176	858	444	526
UP000006062	765911	<i>Thiocystis</i>	<i>violascens</i>	4192	753	1690	740	1009
UP000006073	1189612	<i>Indibacter</i>	<i>alkaliphilus</i>	4650	1234	1611	777	1028
UP000006078	883169	<i>Turicella</i>	<i>otitidis</i>	1846	297	785	354	410
UP000006085	883096	<i>Bergeyella</i>	<i>zoohelcum</i>	2120	499	817	339	465
UP000006138	713604	<i>Amycolatopsis</i>	<i>mediterranei</i>	9551	1820	3392	1898	2441
UP000006177	1048260	<i>Leptospirillum</i>	<i>ferriphilum</i>	2450	681	846	421	502
UP000006178	1094508	<i>Thermoanaerobacterium</i>	<i>saccharolyticum</i>	2778	394	1092	520	772
UP000006230	314265	<i>Pelagibaca</i>	<i>bermudensis</i>	5420	1022	2236	1020	1142
UP000006242	1033802	<i>Salinisphaera</i>	<i>shabanensis</i>	3524	422	1464	725	913
UP000006258	525373	<i>Sphingobacterium</i>	<i>spiritivorum</i>	4471	1001	1528	825	1117
UP000006276	1228997	<i>Riemerella</i>	<i>anatipestifer</i>	2187	566	804	367	450
UP000006281	1179773	<i>Saccharothrix</i>	<i>espanaensis</i>	8423	1893	2925	1548	2057
UP000006286	930169	<i>Alcanivorax</i>	<i>dieselolei</i>	4388	495	1740	954	1199
UP000006294	698758	<i>Amphibacillus</i>	<i>xylanus</i>	2384	290	989	441	664
UP000006304	1133849	<i>Nocardia</i>	<i>brasiliensis</i>	8414	1580	3154	1660	2020
UP000006327	493475	<i>Paraglaciecola</i>	<i>arctica</i>	5330	991	2005	1098	1236
UP000006334	1127673	<i>Aliiglaciecola</i>	<i>lipolytica</i>	4327	759	1651	860	1057
UP000006362	648996	<i>Thermovibrio</i>	<i>ammonificans</i>	1812	329	694	329	460
UP000006365	577650	<i>Desulfobulbus</i>	<i>propionicus</i>	3259	518	1186	604	951
UP000006375	290633	<i>Gluconobacter</i>	<i>oxydans</i>	2626	451	1055	505	615
UP000006377	402881	<i>Parvibaculum</i>	<i>lavamentivorans</i>	3580	381	1518	709	972
UP000006427	469381	<i>Dethiosulfovibrio</i>	<i>peptidovorans</i>	2432	326	1024	491	591
UP000006443	555088	<i>Dethiobacter</i>	<i>alkaliphilus</i>	3162	469	1256	614	823
UP000006461	1144889	<i>Modestobacter</i>	<i>marinus</i>	5435	1061	1986	1064	1324
UP000006462	352165	<i>Pyramidobacter</i>	<i>piscolens</i>	2755	705	1014	493	543
UP000006464	471881	<i>Proteus</i>	<i>penneri</i>	4909	1065	2324	789	731
UP000006468	714995	<i>Komagataebacter</i>	<i>hansenii</i>	3303	754	1245	617	687
UP000006552	76114	<i>Aromatoleum</i>	<i>aromaticum</i>	4483	981	1622	826	1054
UP000006556	370438	<i>Pelotomaculum</i>	<i>thermopropionicum</i>	2884	449	1094	554	787
UP000006578	317655	<i>Sphingopyxis</i>	<i>alaskensis</i>	3184	434	1364	641	745
UP000006583	795359	<i>Thermodesulfobacterium</i>	<i>geofontis</i>	1594	170	635	343	446
UP000006589	426355	<i>Methylobacterium</i>	<i>radiotolerans</i>	6388	1448	2316	1151	1473
UP000006621	717231	<i>Flexistipes</i>	<i>sinusarabici</i>	2185	228	882	461	614
UP000006633	639283	<i>Starkeya</i>	<i>novella</i>	4424	538	1926	856	1104
UP000006637	266117	<i>Rubrobacter</i>	<i>xylanophilus</i>	3127	386	1191	659	891

UP000006639	696127	<i>Midichloria</i>	<i>mitochondrii</i>	1181	347	458	156	220
UP000006640	469371	<i>Thermobispora</i>	<i>bispora</i>	3545	544	1354	695	952
UP000006647	265311	<i>Mesoplasma</i>	<i>florum</i>	683	129	253	128	173
UP000006650	521097	<i>Capnocytophaga</i>	<i>ochracea</i>	2171	462	783	396	530
UP000006657	709991	<i>Odoribacter</i>	<i>splanchnicus</i>	3479	607	1200	736	936
UP000006666	478801	<i>Kytococcus</i>	<i>sedentarius</i>	2531	434	981	492	624
UP000006683	550540	<i>Ferrimonas</i>	<i>balearica</i>	3781	446	1571	814	950
UP000006691	1002809	<i>Solibacillus</i>	<i>silvestris</i>	3812	604	1470	714	1024
UP000006697	204773	<i>Herminiimonas</i>	<i>arsenicocydans</i>	3272	496	1365	634	777
UP000006728	405948	<i>Saccharopolyspora</i>	<i>erythraea</i>	7154	1197	2666	1505	1786
UP000006746	1207063	<i>Oceanibaculum</i>	<i>indicum</i>	3754	423	1558	774	999
UP000006755	745411	<i>Gallaecimonas</i>	<i>xiamenensis</i>	3798	515	1557	782	944
UP000006762	1208323	<i>Celeribacter</i>	<i>baekdonensis</i>	4198	540	1807	881	970
UP000006765	1231392	<i>Oceaniovalibus</i>	<i>guishaninsula</i>	2840	370	1290	544	636
UP000006791	981222	<i>Chloracidobacterium</i>	<i>thermophilum</i>	3053	576	1065	524	888
UP000006793	667014	<i>Thermodesulfator</i>	<i>indicus</i>	2184	237	879	466	602
UP000006803	696747	<i>Arthrospira</i>	<i>platensis</i>	6009	1982	1989	724	1314
UP000006811	261317	<i>Buchnera</i>	<i>aphidicola</i>	359	6	170	90	93
UP000006821	243233	<i>Methylococcus</i>	<i>capsulatus</i>	2925	455	1218	533	719
UP000006833	398580	<i>Dinoroseobacter</i>	<i>shibae</i>	4086	539	1820	800	927
UP000006851	700015	<i>Coriobacterium</i>	<i>glomerans</i>	1768	220	715	387	446
UP000006859	198628	<i>Dickeya</i>	<i>dadantii</i>	4532	623	1832	907	1170
UP000006860	756272	<i>Rubinisphaera</i>	<i>brasiliensis</i>	4710	1220	1510	879	1101
UP000006866	572479	<i>Halanaerobium</i>	<i>praevalens</i>	2055	163	839	417	636
UP000006871	880591	<i>Ketogulonicigenium</i>	<i>vulgare</i>	3209	448	1456	614	691
UP000006872	701347	<i>Enterobacter</i>	<i>lignolyticus</i>	4393	254	1988	998	1153
UP000006875	572544	<i>Ilyobacter</i>	<i>polytropus</i>	2859	417	1096	577	769
UP000006908	1005058	<i>Gallibacterium</i>	<i>anatis</i>	2482	272	1066	473	671
UP000007013	452637	<i>Opitutus</i>	<i>terrae</i>	4588	906	1640	828	1214
UP000007029	375451	<i>Roseobacter</i>	<i>denitrificans</i>	4118	656	1701	814	947
UP000007030	869210	<i>Marinithermus</i>	<i>hydrothermalis</i>	2194	287	841	439	627
UP000007039	768670	<i>Calditerrivibrio</i>	<i>nitroreducens</i>	2089	219	827	443	600
UP000007053	264732	<i>Moorella</i>	<i>thermoacetica</i>	2451	239	998	488	726
UP000007058	342108	<i>Magnetospirillum</i>	<i>magneticum</i>	4514	1002	1665	767	1080
UP000007074	399741	<i>Serratia</i>	<i>proteamaculans</i>	4930	310	2163	1112	1345
UP000007076	452652	<i>Kitasatospora</i>	<i>setae</i>	7443	1611	2674	1375	1783
UP000007102	868864	<i>Desulfurobacterium</i>	<i>thermolithotrophum</i>	1496	124	608	324	440
UP000007127	1123366	<i>Thalassospira</i>	<i>xiamenensis</i>	4340	612	1749	859	1120
UP000007150	690566	<i>Sphingobium</i>	<i>chlorophenolicum</i>	4062	559	1621	879	1003
UP000007161	443254	<i>Marinitoga</i>	<i>piezophila</i>	2044	312	744	438	550
UP000007177	931626	<i>Acetobacterium</i>	<i>woodii</i>	3445	419	1247	709	1070
UP000007347	651182	<i>Desulfobacula</i>	<i>toluolica</i>	4189	621	1539	827	1202
UP000007364	555500	<i>Galbibacter</i>	<i>marinus</i>	3099	495	1176	630	798
UP000007394	945713	<i>Ignavibacterium</i>	<i>album</i>	3169	602	1152	569	846

UP000007397	866895	<i>Halobacillus</i>	<i>halophilus</i>	4100	798	1519	731	1052
UP000007435	649349	<i>Leadbetterella</i>	<i>byssophila</i>	3429	610	1267	672	880
UP000007460	488538	<i>Puniceispirillum</i>	<i>marinum</i>	2545	339	1099	504	603
UP000007463	755732	<i>Fluviicola</i>	<i>taffensis</i>	4016	1215	1316	635	850
UP000007468	546269	<i>Filifactor</i>	<i>alocis</i>	1616	276	629	311	400
UP000007472	937774	<i>Taylorella</i>	<i>equigenitalis</i>	1556	185	682	283	406
UP000007487	867900	<i>Cellulophaga</i>	<i>lytica</i>	3281	634	1206	592	849
UP000007488	645991	<i>Syntrophobotulus</i>	<i>glycolicus</i>	3105	471	1177	577	880
UP000007517	1146883	<i>Blastococcus</i>	<i>saxobsidens</i>	4791	1025	1786	869	1111
UP000007519	984262	<i>Saprospira</i>	<i>grandis</i>	4218	1867	1122	535	694
UP000007587	1144275	<i>Corallococcus</i>	<i>coralloides</i>	8019	2086	2602	1314	2017
UP000007590	929556	<i>Solitalea</i>	<i>canadensis</i>	4304	926	1492	769	1117
UP000007652	857293	<i>Caloramator</i>	<i>australicus</i>	2679	438	1064	476	701
UP000007719	515635	<i>Dictyoglomus</i>	<i>turgidum</i>	1743	167	695	355	526
UP000007730	504832	<i>Oligotropha</i>	<i>carboxidovorans</i>	3624	558	1562	660	844
UP000007809	675635	<i>Pseudonocardia</i>	<i>dioxanivorans</i>	6620	1111	2476	1376	1657
UP000007880	926550	<i>Caldilinea</i>	<i>aerophila</i>	4097	591	1537	789	1180
UP000007881	1142394	<i>Phycisphaera</i>	<i>mikurensis</i>	3269	842	1184	594	649
UP000007882	512565	<i>Actinoplanes</i>	<i>missouriensis</i>	8113	1828	2734	1491	2060
UP000007883	983917	<i>Rubrivivax</i>	<i>gelatinosus</i>	4686	619	1861	958	1248
UP000007938	596154	<i>Alicyclophilus</i>	<i>denitrificans</i>	4620	467	1969	1012	1172
UP000007944	650150	<i>Erysipelothrix</i>	<i>rhusiopathiae</i>	1679	273	628	314	464
UP000007947	1032480	<i>Microlumatus</i>	<i>phosphovorans</i>	5305	1053	2004	972	1276
UP000007962	471853	<i>Beutenbergia</i>	<i>cavernae</i>	4195	572	1724	825	1074
UP000007966	218491	<i>Pectobacterium</i>	<i>atrosepticum</i>	4459	469	1875	966	1149
UP000007967	479435	<i>Kribbella</i>	<i>flavida</i>	6940	1197	2528	1293	1922
UP000007968	479436	<i>Veillonella</i>	<i>parvula</i>	1843	236	750	366	491
UP000008080	264462	<i>Bdellovibrio</i>	<i>bacteriovorus</i>	3583	1043	1220	613	707
UP000008130	991905	<i>Polymorphum</i>	<i>gilvum</i>	4354	555	1890	838	1071
UP000008139	760142	<i>Hippea</i>	<i>maritima</i>	1653	151	696	331	475
UP000008148	290338	<i>Citrobacter</i>	<i>koseri</i>	5019	988	1946	960	1125
UP000008178	585394	<i>Roseburia</i>	<i>hominis</i>	3351	629	1253	606	863
UP000008183	243274	<i>Thermotoga</i>	<i>maritima</i>	1852	210	724	370	548
UP000008221	351607	<i>Acidothermus</i>	<i>cellulolyticus</i>	2157	255	889	426	587
UP000008229	469383	<i>Conexibacter</i>	<i>woesei</i>	5912	939	2095	1268	1610
UP000008234	699246	<i>Mageeibacillus</i>	<i>indolicus</i>	1566	311	572	294	389
UP000008289	243164	<i>Dehalococcoides</i>	<i>mccartyi</i>	1502	303	527	277	395
UP000008291	292415	<i>Thiobacillus</i>	<i>denitrificans</i>	2826	354	1185	576	711
UP000008308	263358	<i>Verrucosispora</i>	<i>maris</i>	5998	1264	2171	1058	1505
UP000008332	338969	<i>Rhodoferax</i>	<i>ferrireducens</i>	4401	530	1773	917	1181
UP000008366	1184609	<i>Kineosphaera</i>	<i>limosa</i>	4422	764	1773	852	1033
UP000008385	365046	<i>Ramlibacter</i>	<i>tataouinensis</i>	3880	442	1652	796	990
UP000008392	1005048	<i>Collimonas</i>	<i>fungivorans</i>	4429	508	1789	972	1160
UP000008456	940190	<i>Melissococcus</i>	<i>plutonius</i>	1876	303	786	339	448

UP000008457	697281	<i>Mahella</i>	<i>australiensis</i>	2858	439	1076	537	806
UP000008461	760192	<i>Haliscomenobacter</i>	<i>hydrossis</i>	6704	1646	2316	1155	1587
UP000008467	642492	<i>Cellulosilyticum</i>	<i>lentocellum</i>	4150	812	1475	810	1053
UP000008495	1184607	<i>Austwickia</i>	<i>cheloniae</i>	3048	493	1213	642	700
UP000008514	313595	<i>Psychroflexus</i>	<i>torquis</i>	3457	847	1209	602	799
UP000008520	420890	<i>Lactococcus</i>	<i>garvieae</i>	1938	297	790	348	503
UP000008543	228400	<i>Histophilus</i>	<i>somni</i>	1971	215	897	370	489
UP000008544	477974	<i>Desulforudis</i>	<i>audaxviator</i>	2136	272	888	408	568
UP000008550	498761	<i>Heliobacterium</i>	<i>modesticaldum</i>	2922	701	993	517	713
UP000008558	441768	<i>Acholeplasma</i>	<i>laidlawii</i>	1380	248	525	246	361
UP000008561	96561	<i>Desulfococcus</i>	<i>oleovorans</i>	3255	482	1230	604	939
UP000008631	575540	<i>Isosphaera</i>	<i>pallida</i>	3721	901	1235	660	925
UP000008633	749222	<i>Nitratifractor</i>	<i>salsuginis</i>	2076	347	868	376	485
UP000008641	865938	<i>Weeksella</i>	<i>virosa</i>	2045	400	759	388	498
UP000008674	309807	<i>Salinibacter</i>	<i>ruber</i>	2812	473	1032	554	753
UP000008707	768066	<i>Halomonas</i>	<i>elongata</i>	3469	319	1585	795	922
UP000008718	694427	<i>Paludibacter</i>	<i>propionicingenes</i>	3020	561	1114	553	792
UP000008720	643867	<i>Marivirga</i>	<i>tractuosa</i>	3748	814	1340	646	948
UP000008721	709032	<i>Sulfuricurvum</i>	<i>kujijense</i>	2794	522	1038	553	681
UP000008722	670487	<i>Oceanithermus</i>	<i>profundus</i>	2372	403	953	432	584
UP000008798	717962	<i>Coprococcus</i>	<i>catus</i>	2985	659	1081	525	720
UP000008801	717960	<i>Faecalitalea</i>	<i>cylindroides</i>	1442	302	580	241	319
UP000008805	657308	<i>Gordonibacter</i>	<i>pamelaeae</i>	2027	477	713	343	494
UP000008806	657316	<i>Megamonas</i>	<i>hypermegale</i>	2118	417	950	337	414
UP000008838	378753	<i>Kocuria</i>	<i>rhizophila</i>	2352	313	951	476	612
UP000008840	522373	<i>Stenotrophomonas</i>	<i>maltophilia</i>	4365	770	1683	853	1059
UP000008850	1082931	<i>Pelagibacterium</i>	<i>halotolerans</i>	3875	539	1714	708	914
UP000008878	203124	<i>Trichodesmium</i>	<i>erythraeum</i>	4342	949	1587	672	1134
UP000008888	857087	<i>Methylomonas</i>	<i>methanica</i>	4435	844	1694	788	1109
UP000008898	63186	<i>Zobellia</i>	<i>galactanivorans</i>	4708	1091	1602	848	1167
UP000008908	886377	<i>Muricauda</i>	<i>ruestringensis</i>	3425	644	1316	611	854
UP000008914	710696	<i>Intrasporangium</i>	<i>calvum</i>	3551	523	1397	700	931
UP000008915	644966	<i>Thermaerobacter</i>	<i>marianensis</i>	2324	274	909	510	631
UP000008922	926569	<i>Anaerolinea</i>	<i>thermophila</i>	3110	515	1145	561	889
UP000008955	657314	<i>Blautia</i>	<i>obeum</i>	3155	636	1155	567	797
UP000008957	651822	<i>Fretibacterium</i>	<i>fastidiosum</i>	1434	288	595	246	305
UP000008960	649756	<i>Anaerostipes</i>	<i>hadrus</i>	2771	548	995	510	718
UP000008963	862908	<i>Halobacteriovorax</i>	<i>marinus</i>	3230	933	1147	532	618
UP000009010	745277	<i>Rahnella</i>	<i>aquatilis</i>	4841	388	2115	1078	1260
UP000009011	1191523	<i>Melioribacter</i>	<i>roseus</i>	2833	368	1076	569	820
UP000009047	644282	<i>Desulfarculus</i>	<i>baarsii</i>	3268	464	1236	625	943
UP000009049	313596	<i>Robiginitalea</i>	<i>biformata</i>	3211	694	1197	568	752
UP000009073	595494	<i>Tolomonas</i>	<i>auensis</i>	3126	275	1281	673	897
UP000009080	377629	<i>Teredinibacter</i>	<i>turnerae</i>	4249	900	1605	753	991

UP000009102	555778	<i>Halothiobacillus</i>	<i>neapolitanus</i>	2353	261	1016	472	604
UP000009149	481448	<i>Methylacidiphilum</i>	<i>inferorum</i>	2470	843	773	347	507
UP000009235	443218	<i>Amycolicococcus</i>	<i>subflavus</i>	4703	927	1735	894	1147
UP000009236	743718	<i>Isoptericola</i>	<i>variabilis</i>	2879	377	1206	546	750
UP000009282	1085623	<i>Glaciecola</i>	<i>nitratireducens</i>	3653	622	1415	711	905
UP000009286	856793	<i>Micavibrio</i>	<i>aeruginosavorus</i>	2432	716	848	370	498
UP000009309	1185876	<i>Fibrisoma</i>	<i>limi</i>	6341	1377	2179	1101	1684
UP000009338	1141663	<i>Providencia</i>	<i>rettgeri</i>	3847	389	1666	819	973
UP000009874	883126	<i>Massilia</i>	<i>timonae</i>	5096	726	1911	1091	1368
UP000009875	883081	<i>Alloiococcus</i>	<i>otitis</i>	1627	160	680	320	467
UP000009881	1238182	<i>Caenispirillum</i>	<i>salinarum</i>	4574	745	1816	878	1135
UP000009888	883066	<i>Actinobaculum</i>	<i>massiliense</i>	1696	256	713	315	412
UP000010294	553217	<i>Enhydrobacter</i>	<i>aerosaccus</i>	2573	491	1012	489	581
UP000010366	1173020	<i>Chamaesiphon</i>	<i>minutus</i>	5815	1638	1979	833	1365
UP000010367	56110	<i>Oscillatoria</i>	<i>acuminata</i>	5755	1398	2017	817	1523
UP000010384	251229	<i>Chroococcidiopsis</i>	<i>thermalis</i>	5740	1142	2090	944	1564
UP000010388	292564	<i>Cyanobium</i>	<i>gracile</i>	3261	712	1387	492	670
UP000010472	1173022	<i>Crinalium</i>	<i>epipsammum</i>	4697	1144	1684	698	1171
UP000010473	111780	<i>Stanieria</i>	<i>cyanosphaera</i>	4751	1019	1785	728	1219
UP000010474	272123	<i>Anabaena</i>	<i>cylindrica</i>	5797	1485	2129	786	1397
UP000010475	56107	<i>Cylindrospermum</i>	<i>stagnale</i>	6200	1712	2165	819	1504
UP000010480	755178	<i>Cyanobacterium</i>	<i>aponinum</i>	3415	634	1370	587	824
UP000010483	292563	<i>Cyanobacterium</i>	<i>stanieri</i>	2831	444	1151	508	728
UP000010716	986075	<i>Caldalkalibacillus</i>	<i>thermarum</i>	2969	409	1239	543	778
UP000010795	717605	<i>Thermobacillus</i>	<i>composti</i>	3802	517	1470	734	1081
UP000010796	926556	<i>Echinicola</i>	<i>vietnamensis</i>	4509	951	1542	882	1134
UP000010798	886293	<i>Singulisphaera</i>	<i>acidiphila</i>	7126	2044	2139	1224	1719
UP000010799	1215343	<i>Liberibacter</i>	<i>crescens</i>	1376	238	567	256	315
UP000010802	1209989	<i>Tepidanaerobacter</i>	<i>acetatoxydans</i>	2640	350	1087	505	698
UP000010816	765912	<i>Thioflavococcus</i>	<i>mobilis</i>	3528	561	1449	626	892
UP000010880	748449	<i>Halobacteroides</i>	<i>halobius</i>	2452	282	930	492	748
UP000010953	1239962	<i>Mariniradius</i>	<i>saccharolyticus</i>	4633	1413	1572	707	941
UP000011021	887898	<i>Lautropia</i>	<i>mirabilis</i>	2665	427	1081	514	643
UP000011058	1166018	<i>Fibrella</i>	<i>aestuarina</i>	5627	1341	1926	966	1394
UP000011135	1237149	<i>Fulvivirga</i>	<i>imtechensis</i>	5952	1774	1832	901	1445
UP000011173	592029	<i>Nonlabens</i>	<i>dokdonensis</i>	3613	1069	1238	564	742
UP000011201	927668	<i>Pseudanabaena</i>	<i>biceps</i>	4751	1177	1789	662	1123
UP000011617	1261130	<i>Wohlfahrtimonas</i>	<i>chitinoclastica</i>	2004	243	816	442	503
UP000011682	1242864	<i>Cystobacter</i>	<i>fuscus</i>	10511	3330	3085	1649	2447
UP000011704	1266370	<i>Nitrospina</i>	<i>gracilis</i>	2962	700	1032	485	745
UP000011721	1167006	<i>Desulfocapsa</i>	<i>sulfexigens</i>	3514	574	1260	713	967
UP000011746	1230341	<i>Salimicrobium</i>	<i>jeotgali</i>	2730	330	1093	555	746
UP000011758	999415	<i>Eggerthia</i>	<i>catenaformis</i>	1874	316	714	358	486
UP000011765	747365	<i>Thermodesulfobium</i>	<i>narugense</i>	1797	194	718	380	505

UP000011834	1124991	<i>Morganella</i>	<i>morganii</i>	3510	354	1573	735	848
UP000011846	1171377	<i>Bibersteinia</i>	<i>trehalosi</i>	2244	244	956	481	563
UP000011863	1313172	<i>Ilumatobacter</i>	<i>coccineus</i>	4290	747	1639	833	1071
UP000011866	1298593	<i>Thalassolituus</i>	<i>oleivorans</i>	3634	678	1418	708	830
UP000011910	1279009	<i>Cesiribacter</i>	<i>andamanensis</i>	4225	1017	1533	726	949
UP000011919	1235279	<i>Bhargavaea</i>	<i>cecembensis</i>	3168	362	1279	671	856
UP000012283	1308866	<i>Gracilibacillus</i>	<i>halophilus</i>	2968	367	1280	539	782
UP000013167	1193181	<i>Tetrasphaera</i>	<i>elongata</i>	3089	614	1237	565	673
UP000013232	1123367	<i>Thauera</i>	<i>linaloolentis</i>	3836	352	1581	812	1091
UP000013378	1304284	<i>Caldisalibacter</i>	<i>kiritimatiensis</i>	2681	472	970	507	732
UP000013981	1203606	<i>Butyricococcus</i>	<i>pullicaeorum</i>	3107	572	1159	575	801
UP000014012	1315976	<i>Plesiomonas</i>	<i>shigelloides</i>	3377	373	1427	717	860
UP000014174	1150600	<i>Arcticibacter</i>	<i>svalbardensis</i>	4309	1093	1494	755	967
UP000014216	1286635	<i>Desulfotignum</i>	<i>phosphitoxidans</i>	4515	710	1716	818	1271
UP000014227	1303518	<i>Chthonomonas</i>	<i>calidirosea</i>	2809	546	937	549	777
UP000014417	883161	<i>Propionimicrobium</i>	<i>lymphophilum</i>	2076	392	815	380	489
UP000014461	1331007	<i>Agarivorans</i>	<i>albus</i>	4397	694	1763	851	1089
UP000014822	1330036	<i>Osedax</i>	<i>symbiont</i>	4383	1186	1556	758	883
UP000014827	1112230	<i>Chlamydia</i>	<i>psittaci</i>	2863	1779	822	160	102
UP000014923	941824	<i>Thermobrachium</i>	<i>celere</i>	2370	291	941	423	715
UP000014962	641526	<i>Winogradskyella</i>	<i>psychrotolerans</i>	4023	1027	1500	659	837
UP000015346	1123069	<i>Rubellimicrobium</i>	<i>thermophilum</i>	3244	523	1482	605	634
UP000015347	1123237	<i>Salipiger</i>	<i>mucosus</i>	5583	1206	2264	1017	1096
UP000015351	1123360	<i>Litoreibacter</i>	<i>arenae</i>	3640	582	1576	691	788
UP000015559	1163617	<i>Sulfuricella</i>	<i>denitrificans</i>	3071	412	1213	644	802
UP000015924	1384484	<i>Adlercreutzia</i>	<i>equolifaciens</i>	2281	370	849	454	608
UP000016057	1234409	<i>Catelicoccus</i>	<i>marimammalium</i>	1196	143	490	235	328
UP000016160	1347342	<i>Formosa</i>	<i>agariphila</i>	3557	691	1289	679	898
UP000016368	887062	<i>Hylemonella</i>	<i>gracilis</i>	3342	295	1472	690	885
UP000016462	1330458	<i>Agrococcus</i>	<i>pavilionensis</i>	2776	503	1055	518	700
UP000016519	1321816	<i>Alloscardovia</i>	<i>omnicolens</i>	1649	371	626	293	359
UP000016843	1123057	<i>Rhodonellum</i>	<i>psychrophilum</i>	4904	1563	1576	739	1026
UP000016901	891974	<i>Plautia</i>	<i>stali</i>	5007	860	2456	876	815
UP000016960	582515	<i>Rubidibacter</i>	<i>lacunae</i>	3455	908	1252	548	747
UP000017081	1319815	<i>Cetobacterium</i>	<i>somerae</i>	2974	467	1168	550	789
UP000017148	1313304	<i>Chitinivibrio</i>	<i>alkaliphilus</i>	2304	482	846	451	525
UP000017429	1379858	<i>Mucispirillum</i>	<i>schaedleri</i>	2091	406	777	396	512
UP000017747	994573	<i>Youngiibacter</i>	<i>fragilis</i>	3736	585	1457	764	923
UP000017813	641147	<i>Simonsiella</i>	<i>muelleri</i>	2220	464	908	381	467
UP000017819	631454	<i>Lutibaculum</i>	<i>baratangense</i>	4164	588	1758	787	1031
UP000017842	1116472	<i>Methyloglobulus</i>	<i>morosus</i>	3737	743	1520	636	833
UP000017881	1260251	<i>Spiribacter</i>	<i>salinus</i>	1684	96	773	336	479
UP000017958	1263095	<i>Paraprevotella</i>	<i>clara</i>	2847	592	1042	533	680
UP000018034	1263099	<i>Parasutterella</i>	<i>excrementihominis</i>	2228	354	879	450	545

UP000018109	1263073	<i>Dorea</i>	<i>formicigenerans</i>	2461	352	983	485	641
UP000018126	1408226	<i>Vagococcus</i>	<i>lutrae</i>	1736	148	700	360	528
UP000018227	592026	<i>Catonella</i>	<i>morbi</i>	3288	708	1239	547	794
UP000018296	1395513	<i>Sporolactobacillus</i>	<i>laevolacticus</i>	3497	556	1351	657	933
UP000018435	1003237	<i>Nitrospirillum</i>	<i>amazonense</i>	3357	817	1091	648	801
UP000018458	762983	<i>Succinatimonas</i>	<i>hippei</i>	2169	379	877	405	508
UP000018466	796942	<i>Stomatobaculum</i>	<i>longum</i>	2070	323	829	383	535
UP000018680	1307761	<i>Salinispira</i>	<i>pacifica</i>	3350	832	1204	576	738
UP000018766	1414851	<i>Pelistega</i>	<i>indica</i>	2121	366	904	375	476
UP000018780	999552	<i>Leisingera</i>	<i>methylohalidivorans</i>	4508	877	1829	851	951
UP000018840	1403945	<i>Negativicoccus</i>	<i>succinicivorans</i>	1679	345	684	286	364
UP000018843	1403948	<i>Varibaculum</i>	<i>camabriense</i>	2003	418	813	331	441
UP000018850	1286632	<i>Zhouia</i>	<i>amylytica</i>	3362	634	1181	642	896
UP000018901	880074	<i>Barnesiella</i>	<i>viscericola</i>	2487	448	888	505	646
UP000019023	694431	<i>Desulfurella</i>	<i>acetivorans</i>	1825	186	732	378	529
UP000019030	1441930	<i>Chania</i>	<i>multitudinisentens</i>	4521	408	1968	994	1151
UP000019050	592010	<i>Abiotrophia</i>	<i>defectiva</i>	1943	329	768	366	480
UP000019062	1227360	<i>Viridibacillus</i>	<i>arenosi</i>	4296	649	1681	809	1157
UP000019063	1317118	<i>Roseivivax</i>	<i>atlanticus</i>	4264	655	1845	804	960
UP000019112	1399147	<i>Holospira</i>	<i>obtusa</i>	1116	388	394	137	197
UP000019151	861299	<i>Gemmatirosa</i>	<i>kalamazoonesis</i>	6261	1397	2113	1126	1625
UP000019190	1432561	<i>Klebsiella</i>	<i>pneumoniae</i>	5313	1233	2505	823	752
UP000019205	314285	<i>Congregibacter</i>	<i>litoralis</i>	3868	611	1514	801	942
UP000019225	1449976	<i>Kutzneria</i>	<i>albida</i>	8775	1664	3119	1759	2233
UP000019242	1121126	<i>Brochothrix</i>	<i>thermosphacta</i>	2589	404	1136	453	596
UP000019276	1328313	<i>Catenovulum</i>	<i>agarivorans</i>	3835	538	1579	772	946
UP000019277	909613	<i>Actinokineospora</i>	<i>spheciospongiae</i>	6610	1545	2281	1238	1546
UP000019325	313624	<i>Nodularia</i>	<i>spumigena</i>	5211	1659	1730	697	1125
UP000019402	869213	<i>Saccharicrinis</i>	<i>fermentans</i>	4663	992	1700	852	1119
UP000019423	1227739	<i>Hymenobacter</i>	<i>swuensis</i>	4612	1232	1525	787	1068
UP000019464	1229521	<i>Nitrincola</i>	<i>nitratireducens</i>	4019	473	1764	811	971
UP000019485	479430	<i>Actinospica</i>	<i>robiniae</i>	191	46	62	36	47
UP000019486	1385369	<i>Skermanella</i>	<i>stibiirensistens</i>	7269	1248	2781	1383	1857
UP000019593	1294273	<i>Roseibacterium</i>	<i>elongatum</i>	3433	607	1442	630	754
UP000019656	1196095	<i>Gilliamella</i>	<i>apicola</i>	2784	469	1097	533	685
UP000019675	1145276	<i>Lysinibacillus</i>	<i>varians</i>	4504	918	1647	803	1136
UP000019678	1192034	<i>Chondromyces</i>	<i>apiculatus</i>	9037	3202	2534	1346	1955
UP000019681	1403537	<i>Fervidicella</i>	<i>metallireducens</i>	2800	525	1068	518	689
UP000019753	948458	<i>Actinotalea</i>	<i>ferrariae</i>	3558	678	1398	650	832
UP000019755	1292022	<i>Curtobacterium</i>	<i>flaccumfaciens</i>	3386	600	1341	598	847
UP000019760	1231351	<i>Acidomonas</i>	<i>methanolica</i>	3270	571	1395	592	712
UP000019767	1164990	<i>Richelia</i>	<i>intracellularis</i>	7610	3754	2459	694	703
UP000019771	1661	<i>Trueperella</i>	<i>pyogenes</i>	1984	282	834	374	494
UP000019805	1437824	<i>Castellaniella</i>	<i>defragrans</i>	3575	417	1482	724	952

UP000019849	69279	<i>Aquamicrobium</i>	<i>defluvii</i>	4454	610	1925	842	1077
UP000021053	927661	<i>Cryptosporangium</i>	<i>arvum</i>	4033	708	1438	813	1074
UP000023044	866499	<i>Cloacibacillus</i>	<i>evryensis</i>	1082	128	424	259	271
UP000023435	1444315	<i>Lysobacter</i>	<i>capsici</i>	5139	1475	1767	928	1106
UP000023541	1317122	<i>Aquimarina</i>	<i>atlantica</i>	4786	1077	1671	867	1171
UP000023772	1168034	<i>Draconibacterium</i>	<i>orientale</i>	3940	683	1432	820	1005
UP000024387	1379159	<i>Dyella</i>	<i>jiangningensis</i>	4342	645	1643	911	1143
UP000024836	1461693	<i>Actibacterium</i>	<i>atlanticum</i>	3126	379	1366	638	743
UP000026714	1286631	<i>Sphaerotilus</i>	<i>natans</i>	4177	672	1671	877	957
UP000027284	1312852	<i>Thermoanaerobaculum</i>	<i>aquaticum</i>	2252	346	826	403	677
UP000027337	83219	<i>Sulfitobacter</i>	<i>mediterraneus</i>	3649	438	1602	728	881
UP000027341	28885	<i>Hydrogenovibrio</i>	<i>marinus</i>	2330	340	933	484	573
UP000027395	388467	<i>Planktothrix</i>	<i>agardhii</i>	4186	841	1680	631	1034
UP000027583	1382230	<i>Asaia</i>	<i>platycodi</i>	3273	782	1224	576	691
UP000027604	1349767	<i>Janthinobacterium</i>	<i>agaricidamnosum</i>	5488	1139	1927	1121	1301
UP000027616	1433126	<i>Mucinivorans</i>	<i>hirudinis</i>	2816	739	1004	465	608
UP000027647	1044	<i>Erythrobacter</i>	<i>longus</i>	3219	565	1330	621	703
UP000027665	2754	<i>Synergistes</i>	<i>jonesii</i>	2481	358	1033	510	580
UP000027725	1185766	<i>Thioclava</i>	<i>dalianensis</i>	4007	570	1731	806	900
UP000027821	1048983	<i>Anditalea</i>	<i>andensis</i>	4341	877	1566	795	1103
UP000027931	1157490	<i>Tumebacillus</i>	<i>flagellatus</i>	4452	785	1624	814	1229
UP000027980	586416	<i>Terribacillus</i>	<i>aidingensis</i>	3230	310	1356	619	945
UP000027982	661478	<i>Fimbriimonas</i>	<i>ginsengisoli</i>	4817	1445	1591	733	1048
UP000027986	1274	<i>Dermacoccus</i>	<i>nishinomiyaensis</i>	2255	396	870	422	567
UP000027997	305900	<i>Endozoicomonas</i>	<i>elysicola</i>	4147	864	1509	801	973
UP000028323	1443103	<i>Snodgrassella</i>	<i>alvi</i>	1571	370	621	280	300
UP000028521	1197477	<i>Mangrovimonas</i>	<i>yunxiaonensis</i>	2307	388	896	410	613
UP000028602	1005995	<i>Tatumella</i>	<i>ptyseos</i>	3337	394	1450	691	802
UP000028624	1005999	<i>Leminorella</i>	<i>grimontii</i>	3756	449	1615	785	907
UP000028680	666509	<i>Planktomarina</i>	<i>temperata</i>	3024	306	1303	674	741
UP000028702	1333998	<i>Tepidicaulis</i>	<i>marinus</i>	3398	474	1409	644	871
UP000028720	1453500	<i>Schleiferia</i>	<i>thermophila</i>	2301	548	815	379	559
UP000028725	394096	<i>Hyalangium</i>	<i>minutum</i>	8967	2568	2706	1436	2257
UP000028824	1105367	<i>Paenirhodobacter</i>	<i>enshiensis</i>	2781	311	1230	569	671
UP000028826	195105	<i>Haematobacter</i>	<i>massiliensis</i>	3806	469	1656	786	895
UP000028933	1338011	<i>Elizabethkingia</i>	<i>anophelis</i>	4061	1006	1426	728	901
UP000028945	1072685	<i>Basilea</i>	<i>psittacipulmonis</i>	1452	130	645	290	387
UP000028981	46914	<i>Devosia</i>	<i>riboflavina</i>	4273	608	1820	835	1010
UP000029085	1121014	<i>Arenimonas</i>	<i>donghaensis</i>	2685	323	1112	522	728
UP000029273	160660	<i>Acidihalobacter</i>	<i>prosperus</i>	2685	479	1274	619	816
UP000029516	158822	<i>Cedecea</i>	<i>neteri</i>	4399	296	1893	1030	1180
UP000029541	1238	<i>Piscirickettsia</i>	<i>salmonis</i>	2947	768	1022	512	645
UP000029622	1156417	<i>Caloranaerobacter</i>	<i>azorensis</i>	2148	318	816	398	616
UP000029629	1401065	<i>Oligella</i>	<i>urethralis</i>	2118	233	910	401	574

UP000029640	1265313	<i>Pseudohalaea</i>	<i>rubra</i>	2860	344	1171	619	726
UP000029644	221126	<i>Algibacter</i>	<i>lectus</i>	4609	1183	1723	759	944
UP000029708	1543381	<i>Oleigrimonas</i>	<i>solis</i>	2676	354	1032	567	723
UP000029736	1524460	<i>Phaeodactylibacter</i>	<i>xiamenensis</i>	5064	1460	1645	834	1125
UP000029737	414996	<i>Actinopolyspora</i>	<i>erythraea</i>	3972	769	1569	717	917
UP000029738	1479485	<i>Tolythrix</i>	<i>bouteillei</i>	7755	2040	2608	1092	2009
UP000029864	1001240	<i>Cryobacterium</i>	<i>roopkundense</i>	3249	545	1329	646	729
UP000029986	1453496	<i>Hafnia</i>	<i>alvei</i>	4059	278	1860	908	1013
UP000029990	1385518	<i>Knoellia</i>	<i>flava</i>	3373	578	1323	625	847
UP000029995	1398085	<i>Inquilinus</i>	<i>limosus</i>	6228	934	2658	1224	1412
UP000030004	1461694	<i>Pseudooceanicola</i>	<i>atlanticus</i>	4202	522	1817	854	1009
UP000030147	1385514	<i>Pontibacillus</i>	<i>yanchengensis</i>	3964	604	1553	744	1063
UP000030170	1497020	<i>Neosynechococcus</i>	<i>sphagnicola</i>	2723	652	1098	404	569
UP000030184	504487	<i>Jejuia</i>	<i>pallidilutea</i>	3326	685	1236	580	825
UP000030185	153721	<i>Sporocytophaga</i>	<i>myxococcoides</i>	5042	1457	1682	774	1129
UP000030300	2045	<i>Nocardioides</i>	<i>simplex</i>	5426	1081	1982	1024	1339
UP000030380	505317	<i>Chelonobacter</i>	<i>oris</i>	2284	109	1006	533	636
UP000030826	370622	<i>Aureimonas</i>	<i>altamirensis</i>	3519	369	1576	695	879
UP000030856	2340	<i>Solemya</i>	<i>velum</i>	2657	431	1048	503	675
UP000030901	1267021	<i>Frischella</i>	<i>perrara</i>	2270	283	967	447	573
UP000030982	1338436	<i>Sinomonas</i>	<i>humi</i>	3444	567	1350	663	864
UP000030988	1572751	<i>Porphyrobacter</i>	<i>mercurialis</i>	2758	416	1179	541	622
UP000030993	82374	<i>Anaerovibrio</i>	<i>lipolyticus</i>	2437	436	971	441	589
UP000031002	1348852	<i>Mumia</i>	<i>flava</i>	4037	557	1647	789	1044
UP000031189	1577792	<i>Terrisporobacter</i>	<i>othiniensis</i>	3449	539	1290	670	950
UP000031275	510955	<i>Chryseobacterium</i>	<i>solincola</i>	2087	336	842	375	534
UP000031386	33033	<i>Parvimonas</i>	<i>micra</i>	1418	175	556	281	406
UP000031408	1349421	<i>Flaviumibacter</i>	<i>solisilvae</i>	4215	744	1486	837	1148
UP000031518	454194	<i>Pyrinomonas</i>	<i>methylaliphatogenes</i>	3179	520	1073	576	1010
UP000031549	1304833	<i>Hassallia</i>	<i>byssoides</i>	10137	2721	3492	1486	2438
UP000031552	340071	<i>Criblamydia</i>	<i>sequanensis</i>	2418	673	824	392	529
UP000031561	1574623	<i>Lyngbya</i>	<i>confervoides</i>	6060	1326	2486	985	1263
UP000031599	215803	<i>Enhygromyxa</i>	<i>salina</i>	8157	3159	2287	1121	1590
UP000031623	40754	<i>Thioploca</i>	<i>ingrica</i>	3951	876	1528	579	968
UP000031631	1076588	<i>Thiolapillus</i>	<i>brandeum</i>	2824	356	1110	562	796
UP000031637	1223802	<i>Sulfuritalea</i>	<i>hydrogenivorans</i>	3578	423	1468	718	969
UP000031643	1384459	<i>Methyloceanibacter</i>	<i>caenitepidi</i>	3341	749	1270	619	703
UP000031675	183763	<i>Streptomonospora</i>	<i>alba</i>	4307	674	1720	799	1114
UP000031938	889306	<i>Jeotgalibacillus</i>	<i>solis</i>	3938	740	1532	707	959
UP000031959	1233231	<i>Scytonema</i>	<i>tolypothrichoides</i>	7078	1279	2012	872	1462
UP000031980	1547597	<i>Sanguibacteroides</i>	<i>justesenii</i>	2587	394	916	543	734
UP000032120	55969	<i>Leucobacter</i>	<i>komagatae</i>	2703	433	1066	543	661
UP000032229	1454006	<i>Siansivirga</i>	<i>zeaxanthinifaciens</i>	2744	489	1071	472	712
UP000032232	935700	<i>Jannaschia</i>	<i>aquimarina</i>	4049	740	1725	724	860

UP000032233	1429043	<i>Dethiosulfatarculus</i>	<i>sandiegensis</i>	5395	1267	1763	960	1398
UP000032266	1445510	<i>Gynuella</i>	<i>sunshinyii</i>	5913	1759	1933	953	1268
UP000032336	1121877	<i>Ferrimicrobium</i>	<i>acidiphilum</i>	2974	789	1031	511	643
UP000032360	1280514	<i>Acidithrix</i>	<i>ferrooxidans</i>	3548	985	1274	606	683
UP000032361	1382798	<i>Tamlana</i>	<i>nanhaiensis</i>	3029	486	1162	561	820
UP000032368	1594576	<i>Mastigocladus</i>	<i>laminosus</i>	5930	1955	1895	832	1222
UP000032414	451	<i>Tatlockia</i>	<i>micdadei</i>	2989	720	1061	511	697
UP000032417	1562970	<i>Fermentimonas</i>	<i>caenicola</i>	2391	320	906	539	626
UP000032438	80854	<i>Moritella</i>	<i>viscosa</i>	4219	581	1736	875	1027
UP000032452	1618023	<i>Chroococcales</i>	<i>cyanobacterium</i>	4366	923	1663	681	1099
UP000032503	110935	<i>Agreia</i>	<i>bicolorata</i>	3109	465	1253	593	798
UP000032515	1076	<i>Rhodopseudomonas</i>	<i>palustris</i>	5580	846	2390	1052	1292
UP000032530	575	<i>Raoultella</i>	<i>planticola</i>	2923	667	1525	393	338
UP000032568	485447	<i>Thalassomonas</i>	<i>actinarum</i>	5460	1213	2010	1043	1194
UP000032611	1486262	<i>Martelevella</i>	<i>endophytica</i>	4020	383	1762	828	1047
UP000032668	1120923	<i>Acidocella</i>	<i>aminolytica</i>	3751	605	1490	713	943
UP000032679	1231623	<i>Tanticharoenia</i>	<i>sakaeratensis</i>	3154	572	1241	622	719
UP000032680	1231350	<i>Acidisphaera</i>	<i>rubrificiens</i>	2788	391	1162	565	670
UP000032749	698738	<i>Oleispira</i>	<i>antarctica</i>	3895	651	1534	780	930
UP000032809	1006576	<i>Defluviitoga</i>	<i>tunisiensis</i>	1811	226	701	377	507
UP000032900	1236989	<i>Geofilum</i>	<i>rubicundum</i>	4411	944	1695	821	951
UP000033070	1188319	<i>Ferriphaseelus</i>	<i>amnicola</i>	2638	463	1025	494	656
UP000033103	187101	<i>Sneathia</i>	<i>amnii</i>	1182	179	468	217	318
UP000033109	400092	<i>Pontibacter</i>	<i>kortensis</i>	4103	820	1400	776	1107
UP000033220	1150469	<i>Pararhodospirillum</i>	<i>photometricum</i>	3275	550	1333	618	774
UP000033393	68170	<i>Lechevalieria</i>	<i>aerocolonigenes</i>	8237	1692	2913	1538	2094
UP000033607	1637645	<i>Limnoraphis</i>	<i>robusta</i>	5035	1163	1821	784	1267
UP000033614	728	<i>Avibacterium</i>	<i>paragallinarum</i>	2171	215	968	443	545
UP000033651	345309	<i>Luteibacter</i>	<i>yeojuensis</i>	3844	612	1453	808	971
UP000033764	332411	<i>Aquitalea</i>	<i>magnusonii</i>	4103	486	1661	873	1083
UP000033774	552518	<i>Elstera</i>	<i>litoralis</i>	3298	659	1469	551	619
UP000034029	407035	<i>Salinicoccus</i>	<i>halodurans</i>	2634	281	1083	576	694
UP000034071	914150	<i>Kangiella</i>	<i>geojedonensis</i>	2207	263	904	451	589
UP000034076	270498	<i>Catabacter</i>	<i>hongkongensis</i>	3148	678	1016	573	881
UP000034392	1267766	<i>Altererythrobacter</i>	<i>atlanticus</i>	3254	463	1356	662	773
UP000034491	1549748	<i>Kiloniella</i>	<i>litopenaei</i>	3735	490	1541	759	945
UP000034681	317619	<i>Prochlorothrix</i>	<i>hollandica</i>	3617	797	1446	578	788
UP000034883	927083	<i>Sandaracinus</i>	<i>amylyolyticus</i>	8941	3080	2501	1280	2080
UP000035032	59505	<i>Actinotignum</i>	<i>schaalii</i>	1443	226	588	283	346
UP000035036	483547	<i>Geoalkalibacter</i>	<i>subterraneus</i>	2987	521	1164	553	749
UP000035062	1195246	<i>Alishewanella</i>	<i>agri</i>	3152	344	1273	688	847
UP000035100	1123501	<i>Wenxinia</i>	<i>marina</i>	4030	626	1712	768	924
UP000035170	34073	<i>Variovorax</i>	<i>paradoxus</i>	6788	784	2801	1499	1704
UP000035265	264251	<i>Cellulosimicrobium</i>	<i>funkei</i>	3980	607	1562	764	1047

UP000035287	1348774	<i>Croceicoccus</i>	<i>naphthovorans</i>	3411	616	1423	645	727
UP000035337	1408281	<i>Endomicrobium</i>	<i>proavitum</i>	1336	186	561	250	339
UP000035352	413882	<i>Polyangium</i>	<i>brachysporum</i>	5541	965	2099	1048	1429
UP000035579	48	<i>Archangium</i>	<i>gephyra</i>	10110	3081	3037	1503	2489
UP000035996	157733	<i>Anaerobacillus</i>	<i>macyae</i>	3973	469	1619	766	1119
UP000036352	988812	<i>Marinovum</i>	<i>algicola</i>	4976	646	2179	1001	1150
UP000036700	445709	<i>Pandoraea</i>	<i>thiooxydans</i>	3963	286	1627	971	1079
UP000036771	1629334	<i>Caedibacter</i>	<i>varicaedens</i>	1663	393	656	261	353
UP000036780	1473	<i>Virgibacillus</i>	<i>pantothenicus</i>	3923	539	1582	753	1049
UP000037269	47500	<i>Aneurinibacillus</i>	<i>migulanus</i>	5649	1073	2080	998	1497
UP000037784	872965	<i>Ardenticatena</i>	<i>maritima</i>	3144	641	1047	578	878
UP000037939	857265	<i>Amantichitinum</i>	<i>ursilacus</i>	4368	632	1737	884	1115
UP000037969	2026	<i>Thermoactinomyces</i>	<i>vulgaris</i>	3820	1005	1467	595	753
UP000038011	1514904	<i>Ahrensia</i>	<i>marina</i>	3161	329	1434	638	760
UP000046155	499207	<i>Syntrophaceticus</i>	<i>schinkii</i>	3167	685	1326	513	643
UP000048984	665126	<i>Prosthecomicrobium</i>	<i>hirschii</i>	5501	771	2345	1098	1287
UP000050280	1300341	<i>Croceitalea</i>	<i>dokdonensis</i>	3682	1008	1296	575	803
UP000050326	36849	<i>Oxobacter</i>	<i>pfennigii</i>	4273	741	1629	777	1126
UP000050331	1472767	<i>Lentibacillus</i>	<i>amyloliquefaciens</i>	3553	521	1434	711	887
UP000050417	1134406	<i>Ornatilinea</i>	<i>apprima</i>	3344	634	1220	605	885
UP000050430	229920	<i>Leptolinea</i>	<i>tardivitalis</i>	2936	517	1122	539	758
UP000050465	1666911	<i>Phormidesmis</i>	<i>priestleyi</i>	4851	1118	1778	791	1164
UP000050471	154981	<i>Aliiroseovarius</i>	<i>crassostreae</i>	3465	593	1511	627	734
UP000050501	229921	<i>Levilinea</i>	<i>saccharolytica</i>	3080	505	1148	591	836
UP000050509	186479	<i>Kouleothrix</i>	<i>aurantiaca</i>	7836	2579	2846	1082	1329
UP000050514	360411	<i>Bellilinea</i>	<i>caldifistulae</i>	2990	612	1066	524	788
UP000050544	869279	<i>Thermanaerotherix</i>	<i>daxensis</i>	2394	342	920	495	637

Supplementary Table 2 Domains co-occurrent with equal to or more than 20 other domains in four representative bacterial species, *Deinococcus deserti*, *Yersinia pestis*, *Helicobacter pylori*, and *Anaplasma phagocytophilum*, were listed. In each bacterium, a domain (marked in red) was chosen to discuss its biological significance in bacterial physiology, which were MarR, HisKA, ResIII and FeoB_N, respectively. All the listed domains were highlighted in yellow in **Figure 2**.

Core Domains in <i>Deinococcus deserti</i>	Core Domains in <i>Yersinia pestis</i>	Core Domains in <i>Helicobacter pylori</i>	Core Domains in <i>Anaplasma phagocytophilum</i>
AAA	AAA	AAA	AAA
AAA_16	AAA_16	AAA_16	AAA_16
AAA_2	AAA_19	AAA_22	AAA_5
AAA_22	AAA_21	AAA_24	FeoB_N
AAA_29	AAA_22	AAA_30	GTP_EFTU
AAA_30	AAA_23	AAA_5	MMR_HSR1
AAA_5	AAA_29	ABC_tran	
ABC_tran	AAA_30	GTP_EFTU	
CbiA	AAA_5	MMR_HSR1	
DEAD	ABC_tran	ResIII	

GAF	Acetyltransf_10		
GAF_2	Cons_hypoth95		
GGDEF	DAO		
GTP_EFTU	DEAD		
HATPase_c	Epimerase		
HD	FAD_binding_2		
HHH_5	FAD_binding_3		
HTH_11	FeoB_N		
HTH_24	Fer4		
HTH_Crp_2	Fer4_10		
HTH_IclR	Fer4_17		
Helicase_C	Fer4_2		
HisKA	Fer4_6		
MMR_HSR1	Fer4_7		
MarR	Fer4_9		
MarR_2	GTP_EFTU		
PAS	HAMP		
PAS_3	HATPase_c		
PAS_4	HTH_11		
PAS_8	HTH_23		
PAS_9	HTH_24		
ResIII	HTH_3		
Response_reg	Helicase_C		
TPR_12	HisKA		
	KR		
	MMR_HSR1		
	MTS		
	Methyltransf_11		
	Methyltransf_12		
	Methyltransf_23		
	Methyltransf_25		
	Methyltransf_31		
	NAD_binding_8		
	PP-binding		
	PrmA		
	Pyr_redox		
	Pyr_redox_2		
	Response_reg		
	RsgA_GTPase		
	SMC_N		
	TPP_enzyme_C		

	Thioesterase		
	Thiolase_N		
	UPF0020		
	Ubie_methyltran		
	adh_short		
	adh_short_C2		

Supplementary Table 3 Unique domains identified in each of the 944 bacterial proteomes analysed in this study. According to the results, some bacterial species have multiple unique domains in their proteomes while others have none. Domain names used here were the names of standard Pfam families, functions of which can be retrieved easily from online web server <http://pfam.xfam.org/>. Ideally, all species-specific domains could serve as putative biomarkers. However, experimental validation should be provided before any assertion is made.

UniProt Proteome ID	Taxonomy ID	Genus	Species	Proteome Size	Unique Domains
UP000000212	1234679	<i>Carnobacterium</i>	<i>maltaromaticum</i>	3539	TFIIF_beta
UP000000214	1171373	<i>Propionibacterium</i>	<i>acidipropionici</i>	3316	DUF4746
UP000000229	399739	<i>Pseudomonas</i>	<i>mendocina</i>	4563	DUF2025, DUF5447, HrpA_pilin, KinB_sensor
UP000000231	312153	<i>Polynucleobacter</i>	<i>necessarius</i>	2074	
UP000000235	369723	<i>Salinispora</i>	<i>tropica</i>	4522	GP24_25, RRP7
UP000000238	349521	<i>Hahella</i>	<i>chejuensis</i>	6751	CRC_subunit, DUF4875
UP000000239	290398	<i>Chromohalobacter</i>	<i>salexigens</i>	3298	PIG-F
UP000000243	391295	<i>Streptococcus</i>	<i>suis</i>	2178	DUF5043, PHtD_u1, Streptin-Immun, JmjN, DUF4651, DUF3272, efb-c
UP000000245	349163	<i>Acidiphilium</i>	<i>cryptum</i>	3521	
UP000000248	246195	<i>Dichelobacter</i>	<i>nodosus</i>	1273	
UP000000256	351627	<i>Caldicellulosiruptor</i>	<i>saccharolyticus</i>	2629	Pox_A22, DUF3527, Med25_VWA, PAP_RNA-bind, MetRS-N
UP000000260	290339	<i>Cronobacter</i>	<i>sakazakii</i>	4421	DUF2737, cIII
UP000000268	329726	<i>Acaryochloris</i>	<i>marina</i>	8172	Peptidase_C3, Doppel, Baculo_PP31, DUF3632, MU117
UP000000269	350688	<i>Alkaliphilus</i>	<i>oremlandii</i>	2828	IFT46_B_C, HN, DUF3091,
UP000000270	438753	<i>Azorhizobium</i>	<i>caulinodans</i>	4708	AbLIM_anchor
UP000000272	555079	<i>Thermosediminibacter</i>	<i>oceani</i>	2151	
UP000000276	681645	<i>Corynebacterium</i>	<i>pseudotuberculosis</i>	2090	
UP000000291	1051632	<i>Sulfobacillus</i>	<i>acidophilus</i>	3722	E3_UbLigase_EDD, Clusterin, BBL5,
UP000000310	762903	<i>Pseudopedobacter</i>	<i>saltans</i>	3780	DUF4933, NBD94, Cytochrome_UL20A, U3_snoRNA_assoc
UP000000321	287752	<i>Aurantimonas</i>	<i>manganooxydans</i>	3625	
UP000000322	446469	<i>Sanguibacter</i>	<i>keddiei</i>	3710	IncD
UP000000323	525904	<i>Thermobaculum</i>	<i>terrenum</i>	2827	Hormone_3, EF-hand_like, DLEU7
UP000000329	757424	<i>Herbaspirillum</i>	<i>seropedicae</i>	4732	UTP15_C, Cytochrom_B558a
UP000000333	633147	<i>Olsenella</i>	<i>uli</i>	1739	
UP000000343	1198114	<i>Granulicella</i>	<i>tundricola</i>	4514	Dynein_attach_N
UP000000361	318586	<i>Paracoccus</i>	<i>denitrificans</i>	5019	MauJ

UP000000362	203120	<i>Leuconostoc</i>	<i>mesenteroides</i>	2002	Tmemb_161AB, MMM1, Base-plate
UP000000366	420662	<i>Methylibium</i>	<i>petroleiphilum</i>	4359	
UP000000370	357809	<i>Clostridium</i>	<i>phytofermentans</i>	3891	DUF3161
UP000000374	391735	<i>Verminephrobacter</i>	<i>eiseniae</i>	4911	DUF3736
UP000000376	644284	<i>Arcanobacterium</i>	<i>haemolyticum</i>	1717	
UP000000377	749414	<i>Streptomyces</i>	<i>bingchenggensis</i>	10019	SpdB
UP000000378	643648	<i>Syntrophothermus</i>	<i>lipocalidus</i>	2311	
UP000000379	649638	<i>Truepera</i>	<i>radiovictrix</i>	2924	
UP000000383	666681	<i>Methylotenera</i>	<i>versatilis</i>	2752	
UP000000387	762948	<i>Rothia</i>	<i>dentocariosa</i>	2212	
UP000000417	292459	<i>Symbiobacterium</i>	<i>thermophilum</i>	3313	
UP000000422	273121	<i>Wolinella</i>	<i>succinogenes</i>	2028	
UP000000423	273119	<i>Ureaplasma</i>	<i>parvum</i>	611	DUF5452, DUF5378
UP000000425	122586	<i>Neisseria</i>	<i>meningitidis</i>	2001	Pilin_PilX, TAA-Trp-ring, DMP12, FrpC, MafB
UP000000429	85962	<i>Helicobacter</i>	<i>pylori</i>	1553	CagA, TAN, CagZ, Tipalpha, PGBA_C, CagY_I, VacA2, CagY_M
UP000000430	62977	<i>Acinetobacter</i>	<i>baylyi</i>	3263	Pox_LP_H2
UP000000434	269800	<i>Thermobifida</i>	<i>fusca</i>	3085	
UP000000439	206672	<i>Bifidobacterium</i>	<i>longum</i>	1725	
UP000000440	197221	<i>Thermosynechococcus</i>	<i>elongatus</i>	2451	DUF2410, DUF4472, Baculo_F
UP000000442	177437	<i>Desulfobacterium</i>	<i>autotrophicum</i>	4846	
UP000000444	396513	<i>Staphylococcus</i>	<i>carnosus</i>	2460	TAFH, Staphopain_pro, Staphostatin_B, DUF1381, DUF4887, COPI_assoc, DUF2483, SSL_OB, FAM70, DUF4889, AgrD, Staph_haemo
UP000000447	309801	<i>Thermomicrobium</i>	<i>roseum</i>	2858	
UP000000448	598659	<i>Nautilia</i>	<i>profundicola</i>	1730	
UP000000466	1117647	<i>Simidiua</i>	<i>agarivorans</i>	3812	PLRV_ORF5, Peptidase_C5
UP000000467	1089553	<i>Thermacetogenium</i>	<i>phaeum</i>	2803	DUF3420
UP000000483	880072	<i>Desulfobacca</i>	<i>acetoxidans</i>	2859	Ntox14
UP000000485	593907	<i>Cellulomonas</i>	<i>gilvus</i>	3153	Chorion_1, DASH_Dad3
UP000000493	761193	<i>Runella</i>	<i>slithyformis</i>	5750	MWFE
UP000000495	765952	<i>Parachlamydia</i>	<i>acanthamoebae</i>	2784	CNOT1_CAF1_bind, Elongin_A
UP000000496	331113	<i>Simkania</i>	<i>negevensis</i>	2516	HECT, PAM2, PaRep2b, P_C10
UP000000503	744872	<i>Treponema</i>	<i>caldarium</i>	2754	FTH, DUF1897
UP000000504	903503	<i>Moranella</i>	<i>endobia</i>	405	
UP000000517	59374	<i>Fibrobacter</i>	<i>succinogenes</i>	2871	Laps, GYF, Tfb5,
UP000000528	272635	<i>Mycoplasma</i>	<i>pulmonis</i>	778	TBPIP_N, Lipoprotein_X
UP000000529	264201	<i>Protochlamydia</i>	<i>amoebophila</i>	2023	DUF3689, SPT_ssu-like
UP000000532	300852	<i>Thermus</i>	<i>thermophilus</i>	2227	

UP000000533	302409	<i>Ehrlichia</i>	<i>ruminantium</i>	948	DUF3514, DUF3023
UP000000537	312309	<i>Vibrio</i>	<i>fischeri</i>	3813	
UP000000546	259536	<i>Psychrobacter</i>	<i>arcticus</i>	2099	L_lactis_ph-MCP, BLYB
UP000000547	167879	<i>Colwellia</i>	<i>psychrerythraea</i>	4872	CR6_interact, PPPI_inhib
UP000000550	159087	<i>Dechloromonas</i>	<i>aromatica</i>	4155	
UP000000552	266835	<i>Rhizobium</i>	<i>loti</i>	7255	Prok-E2_C, Metal_CEHH, Benyvirus_P25, DUF2604
UP000000555	273068	<i>Caldanaerobacter</i>	<i>subterraneus</i>	2545	E6, Josephin, IFT20
UP000000557	251221	<i>Gloeobacter</i>	<i>violaceus</i>	4406	IncE, BRO1
UP000000562	36870	<i>Wigglesworthia</i>	<i>glossinidia</i>	617	
UP000000566	435591	<i>Parabacteroides</i>	<i>distasonis</i>	3830	DUF4621, DUF5024, DUF5032
UP000000577	243231	<i>Geobacter</i>	<i>sulfurreducens</i>	3402	Transposase_24, BID
UP000000579	71421	<i>Haemophilus</i>	<i>influenzae</i>	1707	
UP000000580	262316	<i>Mycobacterium</i>	<i>paratuberculosis</i>	4316	LpqV, MHB, PE_PPE_C
UP000000581	257314	<i>Lactobacillus</i>	<i>johnsonii</i>	1809	Phospholamban, DUF5504, Peptidase_C78, DUF3402, DUF2115
UP000000588	242619	<i>Porphyromonas</i>	<i>gingivalis</i>	1863	
UP000000593	74109	<i>Photobacterium</i>	<i>profundum</i>	5328	THP2, DUF789, Sterol_MT_C
UP000000594	1392	<i>Bacillus</i>	<i>anthracis</i>	5493	Proteasom_PSMB, DUF4027, DUF5514, DUF3896, DUF3910, DUF3932, DUF3975, DUF4021, DUF3935, Bacteriocin_IIi, DUF3894, lci, DUF3913, DUF3925, DUF3978, Bacillus_PapR, DUF3912, DUF3965, DUF3985, DUF5511, DUF4022, DUF4024, DUF3963, DUF3966, DUF3926, YmzC, DUF3979, DUF3908, DUF5513, DUF3974, DUF3981, DUF3914, DUF5512, DUF3942, DUF3921, DUF3924, DUF4028, DUF3928, DUF4075, DUF3911, DUF3934, DUF3980, DUF3976, Corona_NS3b, DUF3929, DUF4052, Anthrax-tox_M, DUF3917, DUF4084, Connexin, DUF3931, DUF3960, DUF3930, DUF3992, DUF3956, DUF3983
UP000000602	177439	<i>Desulfotalea</i>	<i>psychrophila</i>	3233	HEXIM, Chloroplast_duf
UP000000605	272560	<i>Burkholderia</i>	<i>pseudomallei</i>	5717	FliC_SP, DUF2866, DUF3564
UP000000607	221988	<i>Mannheimia</i>	<i>succiniciproducens</i>	2367	DUF3585
UP000000609	272624	<i>Legionella</i>	<i>pneumophila</i>	2930	7kD_coat, DrrA_P4M
UP000000625	83333	<i>Escherichia</i>	<i>coli</i>	4306	CHASE9, YjbT, DUF5503, YmcE_antitoxin, RPAP2_Rtr1, Imm57, DicB, DUF2713, Tna_leader, DUF1327, DUF1187, GAPES2, DUF4049, Ibs_toxin
UP000000628	471856	<i>Jonesia</i>	<i>denitrificans</i>	2495	Chorion_S16, B3R

UP00000637	290340	<i>Arthrobacter</i>	<i>aurescens</i>	4565	Med25_SD1
UP00000639	357804	<i>Psychromonas</i>	<i>ingrahamii</i>	3530	SRX, DUF4757, DOCK-C2
UP00000643	360095	<i>Bartonella</i>	<i>bacilliformis</i>	1255	
UP00000644	365044	<i>Polaromonas</i>	<i>naphthalenivorans</i>	4879	
UP00000647	349124	<i>Halorhodospira</i>	<i>halophila</i>	2406	
UP00000657	326424	<i>Frankia</i>	<i>alni</i>	6710	Intimin_C
UP00000671	234267	<i>Solibacter</i>	<i>usitatus</i>	7761	Baculo_ME53, DUF5092, DUF620
UP00000684	318167	<i>Shewanella</i>	<i>frigidimarina</i>	3990	Nckap1
UP00000718	289376	<i>Thermodesulfovibrio</i>	<i>yellowstonii</i>	1982	Toxin_29, MITF_TFEB_C_3_N, W2,
UP00000719	373903	<i>Halothermothrix</i>	<i>oreni</i>	2324	S-antigen, Nfn1
UP00000723	511995	<i>Azobacteroides</i>	<i>pseudotrichonymphae</i>	847	DUF4606
UP00000738	465515	<i>Micrococcus</i>	<i>luteus</i>	2207	PMP1_2
UP00000739	439235	<i>Desulfatibacillum</i>	<i>alkenivorans</i>	5198	WRC, TSP_1
UP00000755	411154	<i>Gramella</i>	<i>forsetii</i>	3554	
UP00000756	380703	<i>Aeromonas</i>	<i>hydrophila</i>	4121	DUF4371, Eisosome1
UP00000760	360106	<i>Campylobacter</i>	<i>fetus</i>	1715	Orbi_VP1, eIF-4B
UP00000771	525909	<i>Acidimicrobium</i>	<i>ferrooxidans</i>	1935	LRS4
UP00000773	278197	<i>Pediococcus</i>	<i>pentosaceus</i>	1755	
UP00000774	203123	<i>Oenococcus</i>	<i>oeni</i>	1682	
UP00000781	444179	<i>Sulcia</i>	<i>muelleri</i>	227	
UP00000784	398578	<i>Delftia</i>	<i>acidovorans</i>	5968	
UP00000787	316274	<i>Herpetosiphon</i>	<i>aurantiacus</i>	5254	Nbas_N, NtA, MRC1, Herpeto_peptide
UP00000788	93059	<i>Prochlorococcus</i>	<i>marinus</i>	1855	DUF3104
UP00000798	224324	<i>Aquifex</i>	<i>aeolicus</i>	1553	Vps54_N, DUF4507
UP00000809	272843	<i>Pasteurella</i>	<i>multocida</i>	2015	DUF5376
UP00000812	160492	<i>Xylella</i>	<i>fastidiosa</i>	2772	DUF769
UP00000813	176299	<i>Agrobacterium</i>	<i>fabrum</i>	5344	VirE1, VirE2, Agro_virD5
UP00000815	632	<i>Yersinia</i>	<i>pestis</i>	3909	SepQ, Antig_CafI, DUF5463, PsaF, YopE_N, Transposase_1, Exotox-A_bind, His_binding
UP00000817	169963	<i>Listeria</i>	<i>monocytogenes</i>	2844	DUF5502, APG12, Phage-A118_gp45, DUF5072, POT1, DUF2481, Phage_Gp23, Nop10p, DUF3116
UP00000822	221109	<i>Oceanobacillus</i>	<i>ihyensis</i>	3490	MICSWaP, PHA-1
UP00000841	471857	<i>Saccharomonospora</i>	<i>viridis</i>	3828	HRG
UP00000844	446470	<i>Stackebrandtia</i>	<i>nassauensis</i>	6379	Sec16_N
UP00000845	526218	<i>Sebaldella</i>	<i>termitidis</i>	4124	RGS-like, VirArc_Nuclease, DUF3216, DUF530
UP00000851	479433	<i>Catenulispora</i>	<i>acidiphila</i>	8909	TEX13
UP00000852	485917	<i>Pedobacter</i>	<i>heparinus</i>	4249	PEN-2
UP00000925	583355	<i>Coralimargarita</i>	<i>akajimensis</i>	3110	
UP00000927	264731	<i>Prevotella</i>	<i>ruminicola</i>	2761	Barttin, Nitrophorin

UP00000930	749219	<i>Moraxella</i>	<i>catarrhalis</i>	1881	DUF1079
UP00000939	572480	<i>Arcobacter</i>	<i>nitrofigilis</i>	3125	WD-3
UP00000948	634452	<i>Acetobacter</i>	<i>pasteurianus</i>	2906	
UP00000954	469378	<i>Cryptobacterium</i>	<i>curtum</i>	1355	Phage_term_sma
UP00000960	521095	<i>Atopobium</i>	<i>parvulum</i>	1353	EphA2_TM
UP00000998	351348	<i>Marinobacter</i>	<i>hydrocarbonoclasticus</i>	4170	
UP00001007	194439	<i>Chlorobium</i>	<i>tepidum</i>	2250	
UP00001010	190485	<i>Xanthomonas</i>	<i>campestris</i>	4127	Tail_VII
UP00001014	99287	<i>Salmonella</i>	<i>typhimurium</i>	4533	COA2, SpvD, DUF2689, SopA_C, TraQ, AfaD, SecIII_SopE_N, InvH, Saf-Nte pilin, PipA
UP00001023	246200	<i>Ruegeria</i>	<i>pomeroyi</i>	4269	Orbi_VP7
UP00001025	243090	<i>Rhodopirellula</i>	<i>baltica</i>	7271	DUF3770, DUF1556, DUF1560, PGAMP, DUF1590, PSRT, DUF1582, QPP, DUF1586, DUF1589, PEGSRP
UP00001029	445932	<i>Elusimicrobium</i>	<i>minutum</i>	1528	DUF5093
UP00001031	349741	<i>Akkermansia</i>	<i>muciniphila</i>	2137	Bud13, EP400_N
UP00001036	498211	<i>Cellvibrio</i>	<i>japonicus</i>	3711	Prp19, CBM_15
UP00001052	485915	<i>Desulfohalobium</i>	<i>retbaense</i>	2500	
UP00001062	717774	<i>Marinomonas</i>	<i>mediterranea</i>	4118	CLP1_N
UP00001110	391009	<i>Thermosiphon</i>	<i>melanesiensis</i>	1877	ORC4_C, Pex16, Tubulin_3, DUF2666
UP00001114	339671	<i>Actinobacillus</i>	<i>succinogenes</i>	2077	
UP00001116	266940	<i>Kineococcus</i>	<i>radiotolerans</i>	4674	
UP00001171	283942	<i>Idiomarina</i>	<i>loihiensis</i>	2608	Neurochondrin, EIF4E-T
UP00001172	235909	<i>Geobacillus</i>	<i>kaustophilus</i>	3516	DUF5370, MbeB_N, TMEM138, CsgA, Hormone_1, RNA pol Rpc4, RTP
UP00001173	264203	<i>Zymomonas</i>	<i>mobilis</i>	1779	Peptidase_C23
UP00001174	177416	<i>Francisella</i>	<i>tularensis</i>	1528	PI3Ka, IglC
UP00001176	272568	<i>Gluconacetobacter</i>	<i>diazotrophicus</i>	3783	
UP00001191	63737	<i>Nostoc</i>	<i>punctiforme</i>	6573	DUF846, N-SET, Arm_2, DUF1392
UP00001205	314724	<i>Borrelia</i>	<i>turicatae</i>	818	Borrelia_lipo_2, DUF693, DUF764, DUF1473, DUF244, DUF1463, DUF1506, DUF735, Vps39_2, DUF276, DUF792, Borrelia_orfD, DUF3890, DUF1357, Mlp, DUF226, Borrelia_orfA, Lipoprotein 2
UP00001208	517418	<i>Chloroherpeton</i>	<i>thalassium</i>	2708	
UP00001213	521096	<i>Tsukamurella</i>	<i>paurometabola</i>	4170	Deltameth_res
UP00001219	526226	<i>Gordonia</i>	<i>bronchialis</i>	4628	
UP00001225	340100	<i>Bordetella</i>	<i>petrii</i>	4912	
UP00001227	452471	<i>Amoebophilus</i>	<i>asiaticus</i>	1253	
UP00001235	395494	<i>Gallionella</i>	<i>capsiferriformans</i>	2853	Not1, DUF678
UP00001299	515622	<i>Butyrivibrio</i>	<i>proteoclasticus</i>	3799	Fmp27_SW, BRCT_assoc, FB lectin

UP000001302	314260	<i>Parvularcula</i>	<i>bermudensis</i>	2687	Nucleocap_ssRNA, SCNM1_acidic
UP000001303	871271	<i>Zinderia</i>	<i>insecticola</i>	206	
UP000001306	281090	<i>Leifsonia</i>	<i>xyli</i>	2001	DUF2688
UP000001318	31964	<i>Clavibacter</i>	<i>michiganensis</i>	3058	
UP000001319	334413	<i>Finegoldia</i>	<i>magna</i>	1813	DUF1108, HORMA
UP000001332	864702	<i>Oscillatoriales</i>	<i>cyanobacterium</i>	4673	DDHD, Gp17
UP000001351	378806	<i>Stigmatella</i>	<i>aurantiaca</i>	8307	Nucleoporin_FG
UP000001362	243159	<i>Acidithiobacillus</i>	<i>ferrooxidans</i>	3120	
UP000001366	123214	<i>Persephonella</i>	<i>marina</i>	2048	
UP000001369	204536	<i>Sulfurihydrogenibium</i>	<i>azorense</i>	1708	Ribophorin_II
UP000001377	479437	<i>Eggerthella</i>	<i>lenta</i>	3054	
UP000001382	526225	<i>Geodermatophilus</i>	<i>obscurus</i>	4795	
UP000001383	458233	<i>Macrococcus</i>	<i>caseolyticus</i>	2059	7TM_GPCR_Srb
UP000001399	648757	<i>Rhodomicrobium</i>	<i>vannielii</i>	3513	
UP000001405	713887	<i>Atelocyanobacterium</i>	<i>thalassa</i>	1199	
UP000001408	189518	<i>Leptospira</i>	<i>interrogans</i>	3676	Med13_C, DUF1420, AP3D1, DUF1229, DUF1563
UP000001414	226186	<i>Bacteroides</i>	<i>thetaitoamicon</i>	4782	Imm65, DUF5030, CUT, DUF4989, ANAPC8, Neur, DUF5033, DUF3845, DUF5003, DUF3805, Mis12, DUF4984, Clavanin, DUF5035, DUF4119, DUF4891, DUF4627, DUF5014
UP000001415	226185	<i>Enterococcus</i>	<i>faecalis</i>	3240	DUF1140, Potyvirus-P3, DUF632, DUF4950
UP000001416	228410	<i>Nitrosomonas</i>	<i>europaea</i>	2375	
UP000001424	243365	<i>Chromobacterium</i>	<i>violaceum</i>	4397	stn_TNFRSF12A
UP000001436	267608	<i>Ralstonia</i>	<i>solanacearum</i>	5002	F-box_4
UP000001441	572477	<i>Allochroamtium</i>	<i>vinosum</i>	3211	PTN_MK_C
UP000001453	525284	<i>Gardnerella</i>	<i>vaginalis</i>	1365	Rota_NSP3, ASFV_L11L, TFIIF_alpha,
UP000001476	515620	<i>Eubacterium</i>	<i>eligens</i>	2761	ATG_C, DUF2121, ATP- synt_E,
UP000001477	515619	<i>Agathobacter</i>	<i>rectalis</i>	3545	Peptidase_C32, B1, DUF4818, Sgf11, DUF5300, DUF5027
UP000001485	634503	<i>Edwardsiella</i>	<i>ictaluri</i>	3686	RPN13_C
UP000001492	573065	<i>Asticcacaulis</i>	<i>excentricus</i>	3743	CYYR1, Linker_histone, DUF4414, DUF1681
UP000001505	716544	<i>Waddlia</i>	<i>chondrophila</i>	1919	DUF4680, RTT107_BRCT_6
UP000001508	589865	<i>Desulfurivibrio</i>	<i>alkaliphilus</i>	2595	Nit_Regul_Hom
UP000001510	449447	<i>Microcystis</i>	<i>aeruginosa</i>	5981	Sds3, DGCR6
UP000001520	639282	<i>Deferribacter</i>	<i>desulfuricans</i>	2338	F-actin_cap_A, Cyclin_C_2, DUP, WDCP, VGPC1_C, USP7_ICP0_bdg
UP000001551	663278	<i>Ethanoligenens</i>	<i>harbinense</i>	2663	
UP000001556	349161	<i>Desulfotomaculum</i>	<i>reducens</i>	3220	Calici_MSP, Cyto_heme_lyase, EF-hand_2, DUF4771
UP000001565	357244	<i>Orientia</i>	<i>tsutsugamushi</i>	966	Mucin15, TSA, PRANC
UP000001591	414684	<i>Rhodospirillum</i>	<i>centenum</i>	3984	

UP000001601	398720	<i>Leeuwenhoekiella</i>	<i>blandensis</i>	3687	SVA, DUF4216
UP000001619	522306	<i>Accumulibacter</i>	<i>phosphatis</i>	4438	KleE
UP000001625	580332	<i>Sideroxydans</i>	<i>lithotrophicus</i>	2977	
UP000001635	880070	<i>Cyclobacterium</i>	<i>marinum</i>	4983	DUF3112, Rabaptin, Poxvirus_B22R_N, Herpes_UL69, Yopt
UP000001654	655815	<i>Zunongwangia</i>	<i>profunda</i>	4633	NADH_dh_m_C1, TMEM173, Suppressor_APC
UP000001660	330214	<i>Nitrospira</i>	<i>defluvii</i>	4263	DUF1635
UP000001661	574087	<i>Acetohalobium</i>	<i>arabaticum</i>	2276	Radial_spoke_3
UP000001681	262543	<i>Exiguobacterium</i>	<i>sibiricum</i>	3005	Ku_N
UP000001683	457570	<i>Natranaerobius</i>	<i>thermophilus</i>	2847	Igl_C, 7TM_GPCR_Sra, UBA_2, FANCI_S3
UP000001693	395495	<i>Leptothrix</i>	<i>cholodnii</i>	4343	
UP000001695	395963	<i>Beijerinckia</i>	<i>indica</i>	3774	
UP000001700	515618	<i>Riesia</i>	<i>pediculicola</i>	540	
UP000001702	706191	<i>Pantoea</i>	<i>ananatis</i>	4241	
UP000001726	338565	<i>Erwinia</i>	<i>tasmaniensis</i>	3618	DUF5462, Myb_DNA-bind_5, DUF4370, Fimbrial_K88
UP000001732	309798	<i>Coprothermobacter</i>	<i>proteolyticus</i>	1481	
UP000001784	335543	<i>Syntrophobacter</i>	<i>fumaroxidans</i>	4012	DUF4530, ATP1G1_PLM_MAT8
UP000001803	565034	<i>Brachyspira</i>	<i>hyodysenteriae</i>	2642	7TM_GPCR_Srw, DUF3447
UP000001816	190650	<i>Caulobacter</i>	<i>crescentus</i>	3720	
UP000001822	269798	<i>Cytophaga</i>	<i>hutchinsonii</i>	3771	DUF4722, SwrA
UP000001844	472759	<i>Nitrosococcus</i>	<i>halophilus</i>	3770	Flu_NS1, Death
UP000001868	450851	<i>Phenylobacterium</i>	<i>zucineum</i>	3838	
UP000001870	314275	<i>Alteromonas</i>	<i>mediterranea</i>	3938	DUF2664, tRNA_lig_CPD
UP000001877	358681	<i>Brevibacillus</i>	<i>brevis</i>	5887	PHR, Myofilin
UP000001880	502025	<i>Haliangium</i>	<i>ochraceum</i>	6684	MMACHC, YAF2_RYBP
UP000001887	530564	<i>Pirellula</i>	<i>staleyii</i>	4711	Gal4_dimer
UP000001902	591001	<i>Acidaminococcus</i>	<i>fermentans</i>	2016	EAGR_box, FRB_dom, DUF1358, DUF1314
UP000001908	644283	<i>Micromonospora</i>	<i>aurantiaca</i>	6204	CYSYM
UP000001910	523794	<i>Leptotrichia</i>	<i>buccalis</i>	2218	DUF2972, DUF4807, VPS13_C
UP000001916	526227	<i>Meiothermus</i>	<i>silvanus</i>	3383	
UP000001917	521098	<i>Alicyclobacillus</i>	<i>acidocaldarius</i>	3059	Peptidase_C6, TRAP-gamma
UP000001918	471852	<i>Thermomonospora</i>	<i>curvata</i>	4888	EF-hand_10, Zf_RING
UP000001919	446465	<i>Brachybacterium</i>	<i>faecium</i>	3062	
UP000001932	343509	<i>Sodalis</i>	<i>glossinidius</i>	2490	APC_u5
UP000001933	56780	<i>Syntrophus</i>	<i>aciditrophicus</i>	3145	Radial_spoke
UP000001935	290397	<i>Anaeromyxobacter</i>	<i>dehalogenans</i>	4345	
UP000001942	222891	<i>Neorickettsia</i>	<i>sennetsu</i>	932	
UP000001943	212042	<i>Anaplasma</i>	<i>phagocytophilum</i>	1330	
UP000001946	138119	<i>Desulfitobacterium</i>	<i>hafniense</i>	5014	mRNA_stabil

UP000001947	203122	<i>Saccharophagus</i>	<i>degradans</i>	3999	TLD
UP000001953	323097	<i>Nitrobacter</i>	<i>hamburgensis</i>	4243	PVL_ORF50
UP000001955	630626	<i>Shimwellia</i>	<i>blattae</i>	3870	FIN1, Otopettrin, Imm72, Imm71
UP000001959	228405	<i>Hyphomonas</i>	<i>neptunium</i>	3499	Herpes_pp38
UP000001962	187272	<i>Alkalilimnicola</i>	<i>ehrichii</i>	2862	
UP000001963	391165	<i>Granulibacter</i>	<i>bethesdensis</i>	2430	
UP000001964	394221	<i>Maricaulis</i>	<i>maris</i>	3060	
UP000001968	335541	<i>Syntrophomonas</i>	<i>wolfei</i>	2473	UvsY, Siva, DUF4489, RGS
UP000001978	272563	<i>Peptoclostridium</i>	<i>difficile</i>	3762	MSV199, LMWSLP_N, ErmC, DUF4624
UP000001981	342610	<i>Pseudoalteromonas</i>	<i>atlantica</i>	4271	Bys1
UP000001989	392499	<i>Sphingomonas</i>	<i>wittichii</i>	5313	Glyco_hydro_61
UP000002007	288705	<i>Renibacterium</i>	<i>salmoninarum</i>	3421	
UP000002008	324602	<i>Chloroflexus</i>	<i>aurantiacus</i>	3850	Cuticle_1, 2C_adapt, MCPVI
UP000002010	557598	<i>Laribacter</i>	<i>hongkongensis</i>	3208	
UP000002011	471854	<i>Dyadobacter</i>	<i>fermentans</i>	5703	PUB, Pox_I5, MFAP1, RP1-2
UP000002012	522772	<i>Denitrovibrio</i>	<i>acetiphilus</i>	2901	MCM_OB, DUF3507
UP000002016	416591	<i>Pseudothromotoga</i>	<i>lettingae</i>	2040	zf-C2H2_aberr, Baculo_gp64
UP000002019	459349	<i>Cloacimonas</i>	<i>acidaminovorans</i>	1813	DUF1390
UP000002020	482235	<i>Phytoplasma</i>	<i>mali</i>	448	Cauli_DNA-bind
UP000002026	471855	<i>Slackia</i>	<i>heliotrinireducens</i>	2750	DUF2967
UP000002027	479434	<i>Sphaerobacter</i>	<i>thermophilus</i>	3471	Shal-type, DUF4449
UP000002028	504472	<i>Spirosoma</i>	<i>linguale</i>	6867	Ten1_2, Aegerolysin
UP000002029	479432	<i>Streptosporangium</i>	<i>roseum</i>	8955	DUF1263
UP000002030	525903	<i>Thermanaerovibrio</i>	<i>acidaminovorans</i>	1737	
UP000002043	638303	<i>Thermocrinis</i>	<i>albus</i>	1592	DUF2226
UP000002045	406818	<i>Xenorhabdus</i>	<i>bovienii</i>	4102	DUF1139, Pico_P2B, At-tacin_C, KMP11, R_equi_Vir
UP000002072	519441	<i>Streptobacillus</i>	<i>moniliformis</i>	1431	DUF5088
UP000002139	448385	<i>Sorangium</i>	<i>cellulosum</i>	9320	APP_Cu_bd, HARP, VirionAssem_T7, Mitoc_L55, ApeC
UP000002156	340099	<i>Thermoanaerobacter</i>	<i>pseudethanolicus</i>	2193	BDV_M
UP000002171	207954	<i>Neptuniibacter</i>	<i>caesariensis</i>	3687	
UP000002185	75379	<i>Thiomonas</i>	<i>intermedia</i>	3134	
UP000002191	643562	<i>Desulfovibrio</i>	<i>aespoeensis</i>	3269	CENP-C_mid, C_Hendra
UP000002192	203907	<i>Blochmannia</i>	<i>floridanus</i>	583	
UP000002200	203267	<i>Tropheryma</i>	<i>whipplei</i>	805	PI31_Prot_N, CCD, WND
UP000002204	234621	<i>Rhodococcus</i>	<i>erythropolis</i>	6424	DUF4636, Bystin, DUF2744
UP000002207	240015	<i>Acidobacterium</i>	<i>capsulatum</i>	3363	
UP000002208	546414	<i>Deinococcus</i>	<i>deserti</i>	3459	
UP000002209	379066	<i>Gemmatimonas</i>	<i>aurantiaca</i>	3932	DUF1922

UP000002213	446462	<i>Actinosynnema</i>	<i>mirum</i>	6912	PAXIP1_C
UP000002215	485918	<i>Chitinophaga</i>	<i>pinensis</i>	7179	DUF5048
UP000002216	525897	<i>Desulfomicrobium</i>	<i>baculatum</i>	3421	
UP000002218	479431	<i>Nakamurella</i>	<i>multipartita</i>	5123	
UP000002219	446468	<i>Nocardiopsis</i>	<i>dassonvillei</i>	5497	
UP000002220	521674	<i>Planctopirus</i>	<i>limnophila</i>	4258	Orai-1
UP000002221	518766	<i>Rhodothermus</i>	<i>marinus</i>	2861	Lentiviral_Tat
UP000002222	525898	<i>Sulfurospirillum</i>	<i>deleyianum</i>	2243	
UP000002247	640132	<i>Segniliparus</i>	<i>rotundus</i>	3001	
UP000002255	446471	<i>Xylanimonas</i>	<i>cellulosilytica</i>	3441	
UP000002257	395965	<i>Methylocella</i>	<i>silvestris</i>	3816	Neprosin_AP
UP000002294	525919	<i>Anaerococcus</i>	<i>prevotii</i>	1795	Baculo_p74, Pox_ATPase-GT
UP000002297	216432	<i>Croceibacter</i>	<i>atlanticus</i>	2702	Gasdermin, Viral_Hsp90, DUF5099
UP000002301	439375	<i>Ochrobactrum</i>	<i>anthropi</i>	4757	DUF5086, Di19_C
UP000002318	573413	<i>Spirochaeta</i>	<i>smaragdinae</i>	4211	Phage_Gp17, PPS_PS, SUD-M
UP000002334	572265	<i>Hamiltonella</i>	<i>defensa</i>	2045	DUF5311, RPS12
UP000002349	552811	<i>Dehalogenimonas</i>	<i>lykanthroporepellens</i>	1619	zf-LSD1, SPP
UP000002360	688245	<i>Comamonas</i>	<i>testosteroni</i>	4780	BES1_N, Zein
UP000002361	272942	<i>Rhodobacter</i>	<i>capsulatus</i>	3632	
UP000002366	572547	<i>Aminobacterium</i>	<i>colombiense</i>	1872	
UP000002368	562970	<i>Kyrpidia</i>	<i>tusciae</i>	3135	
UP000002377	635013	<i>Thermincola</i>	<i>potens</i>	2908	
UP000002382	521045	<i>Kosmotoga</i>	<i>olearia</i>	2087	
UP000002383	396588	<i>Thioalkalivibrio</i>	<i>sulfidiphilus</i>	3272	Herpes_U30
UP000002402	246197	<i>Myxococcus</i>	<i>xanthus</i>	7314	
UP000002415	381764	<i>Fervidobacterium</i>	<i>nodosum</i>	1725	Flt3_lig
UP000002417	78245	<i>Xanthobacter</i>	<i>autotrophicus</i>	4971	
UP000002424	322710	<i>Azotobacter</i>	<i>vinelandii</i>	4990	
UP000002427	374463	<i>Baumannia</i>	<i>cicadellinicola</i>	595	
UP000002429	266264	<i>Cupriavidus</i>	<i>metallidurans</i>	6364	DUF2880, NEMP, CnrY
UP000002430	363253	<i>Lawsonia</i>	<i>intracellularis</i>	1342	
UP000002432	204669	<i>Koribacter</i>	<i>versatilis</i>	4771	Endomucin, BCS1_N
UP000002440	265072	<i>Methylobacillus</i>	<i>flagellatus</i>	2609	
UP000002480	272947	<i>Rickettsia</i>	<i>prowazekii</i>	834	rOmpB, RP854, DUF2673, DUF2671, DUF2532, DUF2706
UP000002514	243265	<i>Photorhabdus</i>	<i>luminescens</i>	4556	Adeno_shaft
UP000002523	262768	<i>Onion</i>	<i>yellow</i>	730	Mre11_DNA_bind, Phyto-Amp
UP000002526	224911	<i>Bradyrhizobium</i>	<i>diazoefficiens</i>	8253	
UP000002528	335992	<i>Pelagibacter</i>	<i>ubique</i>	1354	IZUMO

UP000002534	338963	<i>Pelobacter</i>	<i>carbinolicus</i>	3292	Cauli_AT, Caveolin
UP000002569	668336	<i>Aggregatibacter</i>	<i>actinomycetemcomitans</i>	2276	LktC, Abp2
UP000002572	653733	<i>Desulfurispirillum</i>	<i>indicum</i>	2551	Exo70
UP000002574	608538	<i>Hydrogenobacter</i>	<i>thermophilus</i>	1892	CKS
UP000002586	156889	<i>Magnetococcus</i>	<i>marinus</i>	3594	PRP4, Adeno_E4_ORF3
UP000002587	413404	<i>Ruthia</i>	<i>magnifica</i>	976	
UP000002596	397945	<i>Acidovorax</i>	<i>citrulli</i>	4602	Peptidase_C27, Herpes LAMP2
UP000002620	429009	<i>Ammonifex</i>	<i>degensii</i>	2077	
UP000002663	945021	<i>Tetragenococcus</i>	<i>halophilus</i>	2507	BSMAP, SAC3, UPF0552
UP000002671	227377	<i>Coxiella</i>	<i>burnetii</i>	1815	Thyroglobulin_1, Tegument_dsDNA, Cyclin_N, Cyclin, DUF807, DUF762, DUF1601, DUF1658
UP000002696	633149	<i>Brevundimonas</i>	<i>subvibrioides</i>	3326	CRA_rpt, Herpes_TAF50
UP000002706	246194	<i>Carboxydotherrhus</i>	<i>hydrogenoformans</i>	2615	UBD, DUF4803
UP000002713	317025	<i>Thiomicrospira</i>	<i>crunogena</i>	2187	DUF2120, NARG2_C
UP000002714	326298	<i>Sulfurimonas</i>	<i>denitrificans</i>	2084	Aida_C2, DUF4535, VIR_N
UP000002716	300267	<i>Shigella</i>	<i>dysenteriae</i>	3897	DUF826, SLT_beta, MxiM, Nse5, DUF3927
UP000002717	1140	<i>Synechococcus</i>	<i>elongatus</i>	2657	Ufm1, Vac17
UP000002718	323848	<i>Nitrospira</i>	<i>multiformis</i>	2732	CCDC32
UP000002719	359391	<i>Bruceella</i>	<i>abortus</i>	3022	
UP000002724	324925	<i>Pelodictyon</i>	<i>phaeoclathratiforme</i>	2685	
UP000002725	290512	<i>Prosthecochloris</i>	<i>aestuarii</i>	2319	
UP000002741	573234	<i>Hodgkinia</i>	<i>cicadicola</i>	169	
UP000002743	582744	<i>Methylovorus</i>	<i>glucosetrophus</i>	2907	HAP2-GCS1, TLV_coat, CAF1
UP000002745	582402	<i>Hirschia</i>	<i>baltica</i>	3187	Death_2
UP000002774	714943	<i>Mucilaginibacter</i>	<i>paludis</i>	6864	Caud_tail_N, Limkain-b1, SPAN-X, MRP-S33
UP000002875	929562	<i>Emticicia</i>	<i>oligotrophica</i>	4251	Putative_CCL4, fn3_4, Hema_esterase, Uso1 p115 head, SAWADEE
UP000002881	660470	<i>Mesotoga</i>	<i>prima</i>	2499	
UP000002892	646529	<i>Desulfosporosinus</i>	<i>acidiphilus</i>	4469	DUF1677
UP000002914	391619	<i>Phaeobacter</i>	<i>inhibens</i>	3853	Talin_middle
UP000002931	314271	<i>Maritimibacter</i>	<i>alkaliphilus</i>	4692	
UP000002938	702450	<i>Turicibacter</i>	<i>sanguinis</i>	2779	WBP-1
UP000002939	626369	<i>Granulicatella</i>	<i>elegans</i>	1562	RPM2
UP000002941	1125718	<i>Actinomyces</i>	<i>massiliensis</i>	3129	
UP000002945	391587	<i>Kordia</i>	<i>algicida</i>	4477	GCR1_C, US22, Interferon, ypmT, Squash, Ribosomal L37e
UP000002949	1082933	<i>Mesorhizobium</i>	<i>amorphae</i>	7083	DUF4467, vMSA, CLLAC
UP000002975	469605	<i>Fusobacterium</i>	<i>gonidiaformans</i>	1890	
UP000003009	629741	<i>Kingella</i>	<i>oralis</i>	3160	APIAR, AIM3

UP000003011	679200	<i>Johnsonella</i>	<i>ignava</i>	2284	DUF2373, RBR
UP000003045	871571	<i>Mobiluncus</i>	<i>mulieris</i>	2379	
UP000003053	313594	<i>Polaribacter</i>	<i>irgensii</i>	2556	Hid1, MSP7_C, FACT-Spt16_Nlob, Exo84_C
UP000003058	765914	<i>Thiorhodospira</i>	<i>sibirica</i>	2933	DUF3591
UP000003087	344747	<i>Gimesia</i>	<i>maris</i>	6463	Solute_trans_a, Glutenin_hmw, DUF1154, Paralemmin, Sec16_C, DUF4576
UP000003111	585531	<i>Aeromicrobium</i>	<i>marinum</i>	3077	DUF5073
UP000003195	706434	<i>Megasphaera</i>	<i>micronuciformis</i>	1771	DUF4704
UP000003226	1163407	<i>Rhodanobacter</i>	<i>spathiphylli</i>	3438	FAM27
UP000003240	1009370	<i>Acetonema</i>	<i>longum</i>	4283	Miga, Pheromone
UP000003244	596315	<i>Peptostreptococcus</i>	<i>stomatis</i>	1600	
UP000003254	471875	<i>Ruminococcus</i>	<i>lactaris</i>	2706	NCD1, TNF
UP000003257	391624	<i>Oceanibulbus</i>	<i>indolifex</i>	4147	
UP000003277	742743	<i>Dialister</i>	<i>succinatiphilus</i>	2140	Peptidase_C41
UP000003280	862517	<i>Peptoniphilus</i>	<i>duerdenii</i>	1987	DUF4528, P2X_receptor
UP000003295	521003	<i>Collinsella</i>	<i>intestinalis</i>	1783	
UP000003374	314278	<i>Nitrococcus</i>	<i>mobilis</i>	3484	Med12-LCEWAV, TOM_sub5, XK-related
UP000003438	411471	<i>Subdoligranulum</i>	<i>variabile</i>	3378	GP11, ANAPC1
UP000003460	626522	<i>Alloprevotella</i>	<i>tannerae</i>	2806	
UP000003494	626523	<i>Shuttleworthia</i>	<i>satelles</i>	2247	UNC-50, zf-DNL
UP000003544	1026882	<i>Methylophaga</i>	<i>aminisulfidivorans</i>	3174	RNA_poll_A34, Saw1
UP000003586	929713	<i>Niabella</i>	<i>solis</i>	4110	KIX, CRAL_TRIO, Peptidase_A2B
UP000003599	883103	<i>Dolosigranulum</i>	<i>pigrum</i>	1691	
UP000003635	314256	<i>Oceanicola</i>	<i>granulosus</i>	3791	
UP000003639	411467	<i>Pseudoflavonifractor</i>	<i>capillosus</i>	4804	RNA_pol_inhib, DUF5022
UP000003671	500635	<i>Mitsuokella</i>	<i>multacida</i>	2558	
UP000003688	320771	<i>Pedosphaera</i>	<i>parvula</i>	6492	DUF3506
UP000003701	585503	<i>Selenomonas</i>	<i>noxia</i>	2020	
UP000003704	1172194	<i>Hydrocarboniphaga</i>	<i>effusa</i>	4474	
UP000003730	1046627	<i>Bizionia</i>	<i>argentinensis</i>	3095	LAX, DUF3211, Got1, DUF313
UP000003764	655812	<i>Aerococcus</i>	<i>viridans</i>	1929	DUF4741, Flavi_NS1
UP000003803	445972	<i>Anaerotruncus</i>	<i>colihominis</i>	4421	Tri3, RTTN_N
UP000003806	885272	<i>Jonquetella</i>	<i>anthropi</i>	1508	
UP000003835	118168	<i>Coleofasciculus</i>	<i>chthonoplastes</i>	8193	DUF3741, Methyltransf_34
UP000003844	865937	<i>Gillisia</i>	<i>limnaea</i>	3411	ATP-synt_S1
UP000003900	1131935	<i>Paenibacillus</i>	<i>dendritiformis</i>	5660	Tox-HNH-HHH, Phage Gp111, Curto_V3
UP000003919	388413	<i>Algoriphagus</i>	<i>machipongonensis</i>	3932	Ninjurin
UP000003922	165597	<i>Crocospaera</i>	<i>watsonii</i>	5659	Kinetocho_Slk19, USP7_C2, PI3K_1B_p101

UP000003947	864069	<i>Microvirga</i>	<i>lotoononidis</i>	6918	
UP000003959	489825	<i>Moorea</i>	<i>producens</i>	7382	BDV_G, ELYS, PMG
UP000004057	570509	<i>Spiroplasma</i>	<i>melliferum</i>	1154	Spiralin, DUF2649, DUF3688
UP000004095	313606	<i>Microscilla</i>	<i>marina</i>	8248	DUF2415, Coagulase, CRM1_C
UP000004097	706433	<i>Solobacterium</i>	<i>moorei</i>	2034	ALG11_N, ATG19_autophagy
UP000004121	585501	<i>Oribacterium</i>	<i>sinus</i>	2638	PAP_assoc, Phage_T4_Gp30_7, 7tm_6
UP000004165	910954	<i>Dietzia</i>	<i>cinnamea</i>	3537	DUF3534
UP000004169	1150626	<i>Phaeospirillum</i>	<i>molischianum</i>	3771	PA28_alpha, Spike_rec_bind
UP000004191	883114	<i>Helcococcus</i>	<i>kunzii</i>	1876	IBD, MIEAP, Pneumovirus_M2
UP000004200	765913	<i>Thiorhodococcus</i>	<i>drewsii</i>	4731	
UP000004221	1129897	<i>Nitrolancea</i>	<i>hollandica</i>	3969	Nic96, Herpes_UL16
UP000004263	207949	<i>Bermanella</i>	<i>marisrubri</i>	3303	DUF630
UP000004291	411684	<i>Hoeflea</i>	<i>phototrophica</i>	4185	U3_assoc_6
UP000004310	314231	<i>Fulvimarina</i>	<i>pelagi</i>	3739	Flavi_NS2A
UP000004315	518637	<i>Holdemanela</i>	<i>biformis</i>	2528	Seadorna_Vp10, Sta- phostatin_A, TAS2R, BRE, TERB2_Cas1_AcylT
UP000004324	1149862	<i>Pelosinus</i>	<i>fermentans</i>	4690	FPL, SRecog, Pho86, Opy2, SepZ
UP000004358	314230	<i>Blastopirellula</i>	<i>marina</i>	6010	Biliv-reduc_cat, Comm
UP000004367	1089455	<i>Mobilicoccus</i>	<i>pelagius</i>	3112	
UP000004374	562729	<i>Rheinheimera</i>	<i>nanhaiensis</i>	3730	
UP000004459	411475	<i>Flavonifractor</i>	<i>plautii</i>	4278	PRA1
UP000004465	883111	<i>Facklamia</i>	<i>hominis</i>	1717	
UP000004474	1210046	<i>Janibacter</i>	<i>hoylei</i>	3070	Coatamer_beta_C
UP000004478	1225176	<i>Cecembia</i>	<i>lonarensis</i>	4213	Gp67
UP000004507	314232	<i>Loktanella</i>	<i>vestfoldensis</i>	3061	
UP000004508	485913	<i>Ktedonobacter</i>	<i>racemifer</i>	11211	zf-TFIIC, DUF3723, S6OS1, UPF0715, DUF1917, Toxin_27
UP000004510	742159	<i>Achromobacter</i>	<i>piechaudii</i>	5755	
UP000004528	585506	<i>Weissella</i>	<i>paramesenteroides</i>	1952	UPF0193, TMEM37, L_lactis_RepB_C
UP000004547	1160710	<i>Microbacterium</i>	<i>laevaniformans</i>	3249	DUF1725, POT1PC, SRF-TF, DUF3295
UP000004619	411483	<i>Faecalibacterium</i>	<i>prausnitzii</i>	3472	Flavi_M, Med29
UP000004622	1189611	<i>Nitratireductor</i>	<i>aquibiodomus</i>	4240	
UP000004664	697282	<i>Methylobacter</i>	<i>tundripaludum</i>	4194	GIT_SHD
UP000004671	880073	<i>Caldithrix</i>	<i>abyssi</i>	3674	SLS, DUF4481, GAGA
UP000004685	575590	<i>Bacteroidetes</i>	<i>oral</i>	1854	Imm12
UP000004690	926559	<i>Joostella</i>	<i>marina</i>	3783	UPF0228, DUF4570
UP000004699	565045	<i>Luminiphilus</i>	<i>syltensis</i>	2923	DUF1668
UP000004703	244592	<i>Labrenzia</i>	<i>alexandrii</i>	5363	
UP000004728	983920	<i>Novosphingobium</i>	<i>nitrogenifigens</i>	3800	DUF3767, T4_gp9_10

UP000004750	797473	<i>Cardiobacterium</i>	<i>valvarum</i>	3026	
UP000004754	887929	<i>Pseudoramibacter</i>	<i>alactolyticus</i>	2514	
UP000004793	511051	<i>Caldisericum</i>	<i>exile</i>	1566	
UP000004913	742766	<i>Dysgonomonas</i>	<i>gadei</i>	4153	Baculo_LEF-3, DUF5040
UP000004923	626939	<i>Phascolarctobacterium</i>	<i>succinatutens</i>	2148	Mlh1_C, TMem95
UP000004946	864564	<i>Parascardovia</i>	<i>denticolens</i>	1679	
UP000004947	313628	<i>Lentisphaera</i>	<i>araneosa</i>	4982	Thoc2, Cys_knot, DUF682, Ubiquitin_3
UP000004956	762967	<i>Sutterella</i>	<i>parvirubra</i>	2483	
UP000004968	566550	<i>Hungatella</i>	<i>hathewayi</i>	7571	RasGEF_N_2, SURF6, TBD
UP000005017	679192	<i>Bulleidia</i>	<i>extracta</i>	1415	
UP000005019	1000565	<i>Methyloversatilis</i>	<i>universalis</i>	3919	DUF247, Aim21, Pea-VEAcid
UP000005089	556269	<i>Oxalobacter</i>	<i>formigenes</i>	2076	SWIRM-assoc_3, CIDE-N
UP000005090	686340	<i>Methylomicrobium</i>	<i>album</i>	3738	XRCC1_N
UP000005096	584708	<i>Aminomonas</i>	<i>paucivorans</i>	2391	
UP000005139	401526	<i>Thermosinus</i>	<i>carboxydivorans</i>	2738	Reo_sigma1, Cript
UP000005143	1097667	<i>Patulibacter</i>	<i>medicamentivorans</i>	4372	DUF4536
UP000005178	445971	<i>Anaerofustis</i>	<i>stercorihominis</i>	2331	AsiA, UFC1, DUF3959, DHHC
UP000005219	693746	<i>Oscillibacter</i>	<i>valericigenes</i>	4593	zf-UDP, Asp_Glu_race_2, zf-C2H2_jaz
UP000005234	767434	<i>Frateuria</i>	<i>aurantia</i>	3098	
UP000005258	1110502	<i>Tistrella</i>	<i>mobilis</i>	5778	DUF4078
UP000005267	1036672	<i>Advenella</i>	<i>kashmirensis</i>	3933	CCDC158
UP000005275	765910	<i>Marichromatium</i>	<i>purpuratum</i>	3249	
UP000005297	314345	<i>Mariprofundus</i>	<i>ferrooxydans</i>	2856	RexB, Varsurf_PPLC
UP000005307	391626	<i>Octadecabacter</i>	<i>antarcticus</i>	4327	PBP_GOBP
UP000005316	1027292	<i>Sporosarcina</i>	<i>newyorkensis</i>	3825	Peptidase_A22B, CC2-LZ
UP000005317	870187	<i>Thiothrix</i>	<i>nivea</i>	4218	Fea1, MRP-S27, Phage-tail_1, UL11
UP000005324	525371	<i>Roseomonas</i>	<i>cervicalis</i>	4774	
UP000005380	717772	<i>Thioalkalimicrobium</i>	<i>aerophilum</i>	2067	
UP000005436	203275	<i>Tannerella</i>	<i>forsythia</i>	2978	CBX7_C, DUF1147
UP000005438	700598	<i>Niastella</i>	<i>koreensis</i>	7171	Gal_GalNac_35kD, DUF4283, RINT1_TIP1
UP000005459	768671	<i>Thiocapsa</i>	<i>marina</i>	4915	
UP000005481	861450	<i>Anaeroglobus</i>	<i>geminatus</i>	2148	Ant_C, Herpes_UL79, DNA Polymerase Pol
UP000005496	555779	<i>Desulfonatronospira</i>	<i>thiodismutans</i>	3577	XPA_C, DUF684
UP000005551	1189621	<i>Nitritalea</i>	<i>halalkaliphila</i>	3102	DUF4577
UP000005561	478749	<i>Marvinbryantia</i>	<i>formatexigens</i>	4894	Nod1, DUF5038, Nop
UP000005566	1086011	<i>Flavobacterium</i>	<i>frigoris</i>	3590	T4_Gp59_N
UP000005631	926562	<i>Owenweeksia</i>	<i>hongkongensis</i>	3471	DUF1160, DUF5098, COG4
UP000005632	158190	<i>Sphaerochaeta</i>	<i>pleomorpha</i>	3150	MTABC_N

UP000005633	640081	<i>Dechlorosoma</i>	<i>suillum</i>	3432	SOCS
UP000005667	862719	<i>Azospirillum</i>	<i>lipoferum</i>	6062	
UP000005695	281689	<i>Desulfuromonas</i>	<i>acetoxidans</i>	3204	bZIP_Maf
UP000005707	1033810	<i>Haloplasma</i>	<i>contractile</i>	3019	Nairo_nucleo, MNSV_P7B
UP000005713	388399	<i>Sagittula</i>	<i>stellata</i>	5025	TORC_C, Tox-WTIP
UP000005714	585530	<i>Brevibacterium</i>	<i>mcbrellneri</i>	2432	Ost4, DUF4690
UP000005737	929563	<i>Leptonema</i>	<i>illini</i>	4129	CTD
UP000005744	395493	<i>Beggiatoa</i>	<i>alba</i>	3440	DUF2112
UP000005777	641146	<i>Scardovia</i>	<i>inopinata</i>	1482	
UP000005778	879212	<i>Desulfobacter</i>	<i>postgatei</i>	3396	Rotavirus_VP3, PIG-Y, Ribosomal L24e
UP000005785	929704	<i>Myroides</i>	<i>odoratus</i>	3687	Myosin-VI_CBD, LOB, IES5, RILP
UP000005801	391625	<i>Plesiocystis</i>	<i>pacifica</i>	8437	DUF2150, DUF569, FAM222A, DUF538
UP000005824	497964	<i>Chthoniobacter</i>	<i>flavus</i>	6705	
UP000005837	546274	<i>Eikenella</i>	<i>corrodens</i>	2627	
UP000005868	580340	<i>Thermovirga</i>	<i>lienii</i>	1853	
UP000005870	1045855	<i>Pseudoxanthomonas</i>	<i>spadix</i>	3147	Miff, Dermcidin
UP000005938	946077	<i>Imtechella</i>	<i>halotolerans</i>	2694	TMEM237, SP24, F_actin_bind
UP000005939	1088868	<i>Commensalibacter</i>	<i>intestini</i>	2209	Circo_capsid, Trs65
UP000005950	545696	<i>Holdemania</i>	<i>fliformis</i>	4221	FTA4, Cullin_Nedd8, Auxin_inducible, UPF0172
UP000005952	670307	<i>Hypomicrobium</i>	<i>denitrificans</i>	3832	SSV1_ORF_D-335, DUF4677
UP000005953	314283	<i>Reinekea</i>	<i>blandensis</i>	4236	DUF382, GPHR_N
UP000005954	89187	<i>Roseovarius</i>	<i>nubinhbens</i>	3545	
UP000005990	908337	<i>Eremococcus</i>	<i>coleocola</i>	1720	mit_SMPDase
UP000006004	546270	<i>Gemella</i>	<i>haemolysans</i>	1709	RSB_motif, EIF_2_alpha
UP000006008	742725	<i>Alistipes</i>	<i>indistinctus</i>	2348	
UP000006034	563192	<i>Bilophila</i>	<i>wadsworthia</i>	3779	
UP000006048	869212	<i>Turneriella</i>	<i>parva</i>	4092	PRELI
UP000006049	746697	<i>Aequorivita</i>	<i>sublithicola</i>	3134	Rav1p_C
UP000006050	866536	<i>Belliella</i>	<i>baltica</i>	3609	Muskelin_N
UP000006051	867902	<i>Ornithobacterium</i>	<i>rhinotracheale</i>	2138	PMC2NT, DUF241, Ac110_PIF
UP000006054	880071	<i>Flexibacter</i>	<i>litoralis</i>	3832	DUF1179, DUF4464, PIG-X, WCOR413
UP000006055	706587	<i>Desulfomonile</i>	<i>tiedjei</i>	5412	End_beta_barrel, CDC73_N
UP000006056	926566	<i>Terriglobus</i>	<i>roseus</i>	3936	
UP000006061	891968	<i>Anaerobaculum</i>	<i>mobile</i>	2004	
UP000006062	765911	<i>Thiocystis</i>	<i>violascens</i>	4192	
UP000006073	1189612	<i>Indibacter</i>	<i>alkaliphilus</i>	4650	Rhabdo_ncap
UP000006078	883169	<i>Turicella</i>	<i>otitidis</i>	1846	
UP000006085	883096	<i>Bergeyella</i>	<i>zoohelcum</i>	2120	Nuf2, FAM86, DGF-1_5, DUF643

UP000006138	713604	<i>Amycolatopsis</i>	<i>mediterranei</i>	9551	DUF1218, DUF5506, RHIM
UP000006177	1048260	<i>Leptospirillum</i>	<i>ferriphilum</i>	2450	
UP000006178	1094508	<i>Thermoanaerobacterium</i>	<i>saccharolyticum</i>	2778	Zea_mays_MuDR, Tom6
UP000006230	314265	<i>Pelagibaca</i>	<i>bermudensis</i>	5420	
UP000006242	1033802	<i>Salinisphaera</i>	<i>shabanensis</i>	3524	
UP000006258	525373	<i>Sphingobacterium</i>	<i>spiritivorum</i>	4471	Imm25, Ints3, Imm19
UP000006276	1228997	<i>Riemerella</i>	<i>anatipestifer</i>	2187	
UP000006281	1179773	<i>Saccharothrix</i>	<i>espanaensis</i>	8423	
UP000006286	930169	<i>Alcanivorax</i>	<i>dieselolei</i>	4388	EFF-AFF
UP000006294	698758	<i>Amphibacillus</i>	<i>xylanus</i>	2384	
UP000006304	1133849	<i>Nocardia</i>	<i>brasiliensis</i>	8414	Totivirus_coat
UP000006327	493475	<i>Paraglaciecola</i>	<i>arctica</i>	5330	Calc_CGRP_IAPP
UP000006334	1127673	<i>Aliiglaciecola</i>	<i>lipolytica</i>	4327	Pneumo_phosprot
UP000006362	648996	<i>Thermovibrio</i>	<i>ammonificans</i>	1812	
UP000006365	577650	<i>Desulfobulbus</i>	<i>propionicus</i>	3259	NAD4L, DUF2043, DUF2368
UP000006375	290633	<i>Gluconobacter</i>	<i>oxydans</i>	2626	Nha1_C
UP000006377	402881	<i>Parvibaculum</i>	<i>lavamentivorans</i>	3580	
UP000006427	469381	<i>Dethiosulfovibrio</i>	<i>peptidovorans</i>	2432	DUF4506
UP000006443	555088	<i>Dethiobacter</i>	<i>alkaliphilus</i>	3162	DNA_Packaging_2
UP000006461	1144889	<i>Modestobacter</i>	<i>marinus</i>	5435	DUF1412
UP000006462	352165	<i>Pyramidobacter</i>	<i>piscolens</i>	2755	
UP000006464	471881	<i>Proteus</i>	<i>penneri</i>	4909	
UP000006468	714995	<i>Komagataeibacter</i>	<i>hansenii</i>	3303	ISK_Channel, CBP_CCPA
UP000006552	76114	<i>Aromatoleum</i>	<i>aromaticum</i>	4483	DUF4758, Phenyl_P_gamma, DUF5457
UP000006556	370438	<i>Pelotomaculum</i>	<i>thermopropionicum</i>	2884	
UP000006578	317655	<i>Sphingopyxis</i>	<i>alaskensis</i>	3184	Peptidase_S21
UP000006583	795359	<i>Thermodesulfobacterium</i>	<i>geofontis</i>	1594	Ydc2-catalyt, DUF3535, zf-RING_4, Pox_A30L_A26L
UP000006589	426355	<i>Methylobacterium</i>	<i>radiotolerans</i>	6388	DUF1005
UP000006621	717231	<i>Flexistipes</i>	<i>sinusarabici</i>	2185	Flu_NP, DUF4888, BLI1, zf-P11
UP000006633	639283	<i>Starkeya</i>	<i>novella</i>	4424	
UP000006637	266117	<i>Rubrobacter</i>	<i>xylanophilus</i>	3127	RE_Alw26IDE
UP000006639	696127	<i>Midichloria</i>	<i>mitochondrii</i>	1181	DUF2733
UP000006640	469371	<i>Thermobispora</i>	<i>bispora</i>	3545	
UP000006647	265311	<i>Mesoplasma</i>	<i>florum</i>	683	
UP000006650	521097	<i>Capnocytophaga</i>	<i>ochracea</i>	2171	Med20, DUF2152
UP000006657	709991	<i>Odoribacter</i>	<i>splanchnicus</i>	3479	Bcl-2_3, Enkurin
UP000006666	478801	<i>Kytococcus</i>	<i>sedentarius</i>	2531	Herpes_ICP4_N, KHA
UP000006683	550540	<i>Ferrimonas</i>	<i>balearica</i>	3781	

UP000006691	1002809	<i>Solibacillus</i>	<i>silvestris</i>	3812	DUF3759, Colicin_K, ApoC-I
UP000006697	204773	<i>Herminiimonas</i>	<i>arsenicoxydans</i>	3272	Orthopox_A47
UP000006728	405948	<i>Saccharopolyspora</i>	<i>erythraea</i>	7154	
UP000006746	1207063	<i>Oceanibaculum</i>	<i>indicum</i>	3754	TMEM206
UP000006755	745411	<i>Gallaecimonas</i>	<i>xiamenensis</i>	3798	
UP000006762	1208323	<i>Celeribacter</i>	<i>baekdonensis</i>	4198	
UP000006765	1231392	<i>Oceaniovalibus</i>	<i>guishaninsula</i>	2840	
UP000006791	981222	<i>Chloracidobacterium</i>	<i>thermophilum</i>	3053	
UP000006793	667014	<i>Thermodesulfator</i>	<i>indicus</i>	2184	CDC37_M, SPACA9, Flu_B_NS1
UP000006803	696747	<i>Arthrospira</i>	<i>platensis</i>	6009	ECSIT
UP000006811	261317	<i>Buchnera</i>	<i>aphidicola</i>	359	
UP000006821	243233	<i>Methylococcus</i>	<i>capsulatus</i>	2925	
UP000006833	398580	<i>Dinoroseobacter</i>	<i>shibae</i>	4086	
UP000006851	700015	<i>Coriobacterium</i>	<i>glomerans</i>	1768	Sec62, zf-TRM13_CCCH
UP000006859	198628	<i>Dickeya</i>	<i>dadantii</i>	4532	zf-CCCH, HMG_box_2, Bac_thur toxin
UP000006860	756272	<i>Rubinisphaera</i>	<i>brasiliensis</i>	4710	zf-C4pol
UP000006866	572479	<i>Halanaerobium</i>	<i>praevalens</i>	2055	Stirrup
UP000006871	880591	<i>Ketogulonicigenium</i>	<i>vulgare</i>	3209	HopW1-1, DUF4730
UP000006872	701347	<i>Enterobacter</i>	<i>lignolyticus</i>	4393	
UP000006875	572544	<i>Ilyobacter</i>	<i>polytropus</i>	2859	MHC_II_alpha
UP000006908	1005058	<i>Gallibacterium</i>	<i>anatis</i>	2482	DUF5090
UP000007013	452637	<i>Opiritutus</i>	<i>terrae</i>	4588	Rif1_N, MRP-S35
UP000007029	375451	<i>Roseobacter</i>	<i>denitrificans</i>	4118	
UP000007030	869210	<i>Marinithermus</i>	<i>hydrothermalis</i>	2194	P3A
UP000007039	768670	<i>Calditerrivibrio</i>	<i>nitroreducens</i>	2089	
UP000007053	264732	<i>Moorella</i>	<i>thermoacetica</i>	2451	TF_AP-2, Matrilin_ccoil
UP000007058	342108	<i>Magnetospirillum</i>	<i>magneticum</i>	4514	
UP000007074	399741	<i>Serratia</i>	<i>proteamaculans</i>	4930	DUF4638, Homez
UP000007076	452652	<i>Kitasatospora</i>	<i>setae</i>	7443	DUF3475, Hyaluronidase_1
UP000007102	868864	<i>Desulfurobacterium</i>	<i>thermolithotrophum</i>	1496	UPF0254, Fibrillarlin_2, Beta lactamase3, HMD
UP000007127	1123366	<i>Thalassospira</i>	<i>xiamenensis</i>	4340	Bundlin, VSP, MAT1
UP000007150	690566	<i>Sphingobium</i>	<i>chlorophenolicum</i>	4062	DUF4799
UP000007161	443254	<i>Marinitoga</i>	<i>piezophila</i>	2044	Pepsin-I3, DUF1930, rpo30_N, UBA_3
UP000007177	931626	<i>Acetobacterium</i>	<i>woodii</i>	3445	Viral_DNA_bi, Pik1, DUF1474
UP000007347	651182	<i>Desulfobacula</i>	<i>toluolica</i>	4189	DUF4187, TYW3, Spin- dle_Spc25, Rep_fac-A_C
UP000007364	555500	<i>Galbibacter</i>	<i>marinus</i>	3099	
UP000007394	945713	<i>Ignavibacterium</i>	<i>album</i>	3169	TMEM223
UP000007397	866895	<i>Halobacillus</i>	<i>halophilus</i>	4100	MCRS_N, DUF4793, DUF2096

UP000007435	649349	<i>Leadbetterella</i>	<i>byssophila</i>	3429	LBR_tudor
UP000007460	488538	<i>Puniceispirillum</i>	<i>marinum</i>	2545	KH_6, CD99L2
UP000007463	755732	<i>Fluviicola</i>	<i>taffensis</i>	4016	TLP-20, Antimicrobial15
UP000007468	546269	<i>Filifactor</i>	<i>alocis</i>	1616	RICH
UP000007472	937774	<i>Taylorella</i>	<i>equigenitalis</i>	1556	ESM4, Rota_NSP4, IL31
UP000007487	867900	<i>Cellulophaga</i>	<i>lytica</i>	3281	Decorin_bind, SART-1, SAS-6_N, Herpes_BMRF2, Myb_Cef, PRRSV_2b
UP000007488	645991	<i>Syntrophobotulus</i>	<i>glycolicus</i>	3105	SAC3_GANP, AAA_9
UP000007517	1146883	<i>Blastococcus</i>	<i>saxobsidens</i>	4791	DUF1604
UP000007519	984262	<i>Saprospira</i>	<i>grandis</i>	4218	Tox-MPTase2, IHO1
UP000007587	1144275	<i>Coralloccoccus</i>	<i>coralloides</i>	8019	zf-CCHC
UP000007590	929556	<i>Solitalea</i>	<i>canadensis</i>	4304	DUF3642, Oberon_cc, Rhabdo_ncap_2
UP000007652	857293	<i>Caloramator</i>	<i>australicus</i>	2679	UBN_AB, VP4_haemagglut, zf-CpG_bind_C
UP000007719	515635	<i>Dictyoglomus</i>	<i>turgidum</i>	1743	AAA_8
UP000007730	504832	<i>Oligotropha</i>	<i>carboxidovorans</i>	3624	MAS20, DUF2890, tRNA_NucTransf2
UP000007809	675635	<i>Pseudonocardia</i>	<i>dioxanivorans</i>	6620	CARM1, Kinocilin
UP000007880	926550	<i>Caldilinea</i>	<i>aerophila</i>	4097	Herpes_UL20
UP000007881	1142394	<i>Phycisphaera</i>	<i>mikurensis</i>	3269	tRNA_bind_2, K_channel_TID
UP000007882	512565	<i>Actinoplanes</i>	<i>missouriensis</i>	8113	Ntox27, MAGE_N
UP000007883	983917	<i>Rubrivivax</i>	<i>gelatinosus</i>	4686	
UP000007938	596154	<i>Alicyclophilus</i>	<i>denitrificans</i>	4620	DUF1010
UP000007944	650150	<i>Erysipelothrix</i>	<i>rhusiopathiae</i>	1679	UPF0139
UP000007947	1032480	<i>Micrococcus</i>	<i>phosphovorans</i>	5305	SAPIS-gp6, Colicin_M, Sperio-lin_N
UP000007962	471853	<i>Beutenbergia</i>	<i>cavernae</i>	4195	
UP000007966	218491	<i>Pectobacterium</i>	<i>atrosepticum</i>	4459	CDK2AP, DUF4756
UP000007967	479435	<i>Kribbella</i>	<i>flavida</i>	6940	
UP000007968	479436	<i>Veillonella</i>	<i>parvula</i>	1843	MHC2-interact, RRP36
UP000008080	264462	<i>Bdellovibrio</i>	<i>bacteriovorus</i>	3583	Dynein_heavy, FAM75, Transcript_VP30
UP000008130	991905	<i>Polymorphum</i>	<i>gilvum</i>	4354	V-SNARE_C
UP000008139	760142	<i>Hippea</i>	<i>maritima</i>	1653	ACDC, Peptidase_M44, Ribosomal_S26e
UP000008148	290338	<i>Citrobacter</i>	<i>koseri</i>	5019	
UP000008178	585394	<i>Roseburia</i>	<i>hominis</i>	3351	
UP000008183	243274	<i>Thermotoga</i>	<i>maritima</i>	1852	JMY, DUF3855, DUF1923
UP000008221	351607	<i>Acidothermus</i>	<i>cellulolyticus</i>	2157	
UP000008229	469383	<i>Conexibacter</i>	<i>woesei</i>	5912	DUF4639
UP000008234	699246	<i>Magaeibacillus</i>	<i>indolicus</i>	1566	zf-RING_10, CCDC142
UP000008289	243164	<i>Dehalococcoides</i>	<i>mccartyi</i>	1502	
UP000008291	292415	<i>Thiobacillus</i>	<i>denitrificans</i>	2826	Adeno_hexon_C, RdRP_5

UP000008308	263358	<i>Verrucosipora</i>	<i>maris</i>	5998	RE_BstXI
UP000008332	338969	<i>Rhodoferax</i>	<i>ferrireducens</i>	4401	Jas
UP000008366	1184609	<i>Kineosphaera</i>	<i>limosa</i>	4422	
UP000008385	365046	<i>Ramlibacter</i>	<i>tataouinensis</i>	3880	
UP000008392	1005048	<i>Collimonas</i>	<i>fungivorans</i>	4429	DEK_C, HPIH
UP000008456	940190	<i>Melissococcus</i>	<i>plutonium</i>	1876	Kin17_mid
UP000008457	697281	<i>Mahella</i>	<i>australiensis</i>	2858	TFX_C
UP000008461	760192	<i>Haliscomenobacter</i>	<i>hydrossis</i>	6704	Mid2, UFD1, CAGE1, CRPV_capsid, SWC7, MOZART1, Vps4_C
UP000008467	642492	<i>Cellulosilyticum</i>	<i>lentocellum</i>	4150	RLL, BPS1, C9orf72-like, DUF775, PA28_beta
UP000008495	1184607	<i>Austwickia</i>	<i>chelonae</i>	3048	Diphtheria_T, Diphtheria_R
UP000008514	313595	<i>Psychroflexus</i>	<i>torquis</i>	3457	MOSP_N, PCIF1_WW, DUF5091, Cyt b-c1_8
UP000008520	420890	<i>Lactococcus</i>	<i>garvieae</i>	1938	BNIP3, Lac_bphage_repr
UP000008543	228400	<i>Histophilus</i>	<i>somni</i>	1971	
UP000008544	477974	<i>Desulforudis</i>	<i>audaxviator</i>	2136	
UP000008550	498761	<i>Heliobacterium</i>	<i>modesticaldum</i>	2922	
UP000008558	441768	<i>Acholeplasma</i>	<i>laidlawii</i>	1380	
UP000008561	96561	<i>Desulfococcus</i>	<i>oleovorans</i>	3255	
UP000008631	575540	<i>Isosphaera</i>	<i>pallida</i>	3721	
UP000008633	749222	<i>Nitratifractor</i>	<i>salsuginis</i>	2076	
UP000008641	865938	<i>Weeksella</i>	<i>virosa</i>	2045	
UP000008674	309807	<i>Salinibacter</i>	<i>ruber</i>	2812	Nab1, HisKA_4TM
UP000008707	768066	<i>Halomonas</i>	<i>elongata</i>	3469	
UP000008718	694427	<i>Paludibacter</i>	<i>propionigenes</i>	3020	SYS1, ATS3
UP000008720	643867	<i>Marivirga</i>	<i>tractuosa</i>	3748	SMRP1, RNA_polI_A14, DUF688, Complex1_LYR, Integrin B tail
UP000008721	709032	<i>Sulfuricurvum</i>	<i>kujiense</i>	2794	Rrp15p, cwf21
UP000008722	670487	<i>Oceanithermus</i>	<i>profundus</i>	2372	
UP000008798	717962	<i>Coprococcus</i>	<i>catus</i>	2985	
UP000008801	717960	<i>Faecalitalea</i>	<i>cylindroides</i>	1442	
UP000008805	657308	<i>Gordonibacter</i>	<i>pamelaeae</i>	2027	DUF4642
UP000008806	657316	<i>Megamonas</i>	<i>hypermegale</i>	2118	
UP000008838	378753	<i>Kocuria</i>	<i>rhizophila</i>	2352	
UP000008840	522373	<i>Stenotrophomonas</i>	<i>maltophilia</i>	4365	Poxvirus_B22R_C
UP000008850	1082931	<i>Pelagibacterium</i>	<i>halotolerans</i>	3875	
UP000008878	203124	<i>Trichodesmium</i>	<i>erythraeum</i>	4342	RAB3GAP2_N, Tom22, DUF1509
UP000008888	857087	<i>Methylomonas</i>	<i>methanica</i>	4435	DUF4518, SICA_alpha, DUF2407, PARM, Dymeclin
UP000008898	63186	<i>Zobellia</i>	<i>galactanivorans</i>	4708	RTBV_P46, SH2_2, UL45, ESR1_C
UP000008908	886377	<i>Muricauda</i>	<i>ruestringensis</i>	3425	Peptidase_S30

UP000008914	710696	<i>Intrasporangium</i>	<i>calvum</i>	3551	
UP000008915	644966	<i>Thermaerobacter</i>	<i>marianensis</i>	2324	
UP000008922	926569	<i>Anaerolinea</i>	<i>thermophila</i>	3110	DUF1246
UP000008955	657314	<i>Blautia</i>	<i>obeum</i>	3155	HAUS4
UP000008957	651822	<i>Fretibacterium</i>	<i>fastidiosum</i>	1434	
UP000008960	649756	<i>Anaerostipes</i>	<i>hadrus</i>	2771	CaKB, 7TM_GPCR_Srt, Birna_RdRp, Mem10, DUF1947, Med10
UP000008963	862908	<i>Halobacteriovorax</i>	<i>marinus</i>	3230	Stanniocalcin
UP000009010	745277	<i>Rahnella</i>	<i>aquatilis</i>	4841	Pil1, Cornichon, ESAG1
UP000009011	1191523	<i>Melioribacter</i>	<i>roseus</i>	2833	HBS1_N, ATP13
UP000009047	644282	<i>Desulfarculus</i>	<i>baarsii</i>	3268	
UP000009049	313596	<i>Robiginitalea</i>	<i>biformata</i>	3211	
UP000009073	595494	<i>Tolomonas</i>	<i>auensis</i>	3126	
UP000009080	377629	<i>Teredinibacter</i>	<i>turnerae</i>	4249	Velvet, ALS2CR8
UP000009102	555778	<i>Halothiobacillus</i>	<i>neapolitanus</i>	2353	Hema_HEFG
UP000009149	481448	<i>Methylacidiphilum</i>	<i>inferorum</i>	2470	
UP000009235	443218	<i>Amycolicoccus</i>	<i>subflavus</i>	4703	
UP000009236	743718	<i>Isoptericola</i>	<i>variabilis</i>	2879	
UP000009282	1085623	<i>Glaciecola</i>	<i>nitratireducens</i>	3653	Pox_A6
UP000009286	856793	<i>Micavibrio</i>	<i>aeruginosavorus</i>	2432	DUF1068
UP000009309	1185876	<i>Fibrisoma</i>	<i>limi</i>	6341	
UP000009338	1141663	<i>Providencia</i>	<i>rettgeri</i>	3847	STAT_int, RNA_pol_Rpc82
UP000009874	883126	<i>Massilia</i>	<i>timonae</i>	5096	
UP000009875	883081	<i>Alloiococcus</i>	<i>otitis</i>	1627	TRIQQ
UP000009881	1238182	<i>Caenispirillum</i>	<i>salinarum</i>	4574	
UP000009888	883066	<i>Actinobaculum</i>	<i>massiliense</i>	1696	
UP000010294	553217	<i>Enhydrobacter</i>	<i>aerosaccus</i>	2573	PDR_assoc
UP000010366	1173020	<i>Chamaesiphon</i>	<i>minutus</i>	5815	TM140, RICTOR_N, Auxin canal
UP000010367	56110	<i>Oscillatoria</i>	<i>acuminata</i>	5755	AC_N, Tox-REase-2, TFIID_30kDa, VCX_VCY, PALB2_WD40, XG_FTase, Tfb4
UP000010384	251229	<i>Chroococidiopsis</i>	<i>thermalis</i>	5740	DUF3778, Fox-1_C, SRP68, DUF22, RRM_2
UP000010388	292564	<i>Cyanobium</i>	<i>gracile</i>	3261	
UP000010472	1173022	<i>Crinalium</i>	<i>epipsammum</i>	4697	Phyto_Pns9_10, DRIM, DUF758, TcpF, Syntaxin-5_N
UP000010473	111780	<i>Stanieria</i>	<i>cyanosphaera</i>	4751	CHDCT2, dsDNA_bind
UP000010474	272123	<i>Anabaena</i>	<i>cylindrica</i>	5797	Sec63, Rho_GDI
UP000010475	56107	<i>Cylindrospermum</i>	<i>stagnale</i>	6200	Rgp1, TMEM214, BCIP, SPA, AAR2
UP000010480	755178	<i>Cyanobacterium</i>	<i>aponinum</i>	3415	RdRP_2, BCNT, WHAMM-JMY_N, UBA_e1 thiolCys
UP000010483	292563	<i>Cyanobacterium</i>	<i>stanieri</i>	2831	

UP000010716	986075	<i>Caldalkalibacillus</i>	<i>thermarum</i>	2969	zf-CW, FAM199X, DUF2370, E7
UP000010795	717605	<i>Thermobacillus</i>	<i>composti</i>	3802	YrpD, Autophagy_C
UP000010796	926556	<i>Echinicola</i>	<i>vietnamensis</i>	4509	DUF5415
UP000010798	886293	<i>Singulisphaera</i>	<i>acidiphila</i>	7126	DUF4732, UPF0542
UP000010799	1215343	<i>Liberibacter</i>	<i>creescens</i>	1376	
UP000010802	1209989	<i>Tepidanaerobacter</i>	<i>acetatoxydans</i>	2640	Flu_B_M2, Baculo_p48, Ecm29
UP000010816	765912	<i>Thioflavococcus</i>	<i>mobilis</i>	3528	Nb11_Borealini_N
UP000010880	748449	<i>Halobacteroides</i>	<i>halobius</i>	2452	PDCD2_C, Rad9, Helo_like_N
UP000010953	1239962	<i>Mariniradius</i>	<i>saccharolyticus</i>	4633	CytadhesinP1
UP000011021	887898	<i>Lautropia</i>	<i>mirabilis</i>	2665	XPG_I_2
UP000011058	1166018	<i>Fibrella</i>	<i>aestuarina</i>	5627	
UP000011135	1237149	<i>Fulvivirga</i>	<i>intechensis</i>	5952	Ribosomal_L22e, Pox_I6
UP000011173	592029	<i>Nonlabens</i>	<i>dokdonensis</i>	3613	
UP000011201	927668	<i>Pseudanabaena</i>	<i>biceps</i>	4751	RE_LlaMI, NGP1NT, ATG27, Jiv90
UP000011617	1261130	<i>Wohlfahrtiimonas</i>	<i>chitiniclastica</i>	2004	
UP000011682	1242864	<i>Cystobacter</i>	<i>fuscus</i>	10511	Diphtheria_C, Matrix, TIM21, RBP_receptor, DUF3548, Phage_C, Phage_F, Exotox-A_cataly
UP000011704	1266370	<i>Nitrospina</i>	<i>gracilis</i>	2962	
UP000011721	1167006	<i>Desulfocapsa</i>	<i>sulfexigens</i>	3514	
UP000011746	1230341	<i>Salimicrobium</i>	<i>jeotgali</i>	2730	TRC8_N, yqaH
UP000011758	999415	<i>Eggerthia</i>	<i>cateniformis</i>	1874	AATF-Che1
UP000011765	747365	<i>Thermodesulfobium</i>	<i>narugense</i>	1797	FBA_2
UP000011834	1124991	<i>Morganella</i>	<i>morganii</i>	3510	DX
UP000011846	1171377	<i>Bibersteinia</i>	<i>trehalosi</i>	2244	
UP000011863	1313172	<i>Ilumatobacter</i>	<i>coccineus</i>	4290	
UP000011866	1298593	<i>Thalassolituus</i>	<i>oleivorans</i>	3634	PaaSYMP, Chibby
UP000011910	1279009	<i>Cesiribacter</i>	<i>andamanensis</i>	4225	Nup96
UP000011919	1235279	<i>Bhargavaea</i>	<i>cecembensis</i>	3168	Birna_VP4, DUF4658
UP000012283	1308866	<i>Gracilibacillus</i>	<i>halophilus</i>	2968	Grg1, RIX1, Gemini_AL3, DUF1672
UP000013167	1193181	<i>Tetrasphaera</i>	<i>elongata</i>	3089	
UP000013232	1123367	<i>Thauera</i>	<i>linaloolentis</i>	3836	Sec6
UP000013378	1304284	<i>Caldisalibacacter</i>	<i>kiritimatiensis</i>	2681	BBS2_C, Tenui_NS3, DUF2717, Orthopox_A49R, CP2, BCAS2, Gly acyl tr N
UP000013981	1203606	<i>Butyricoccus</i>	<i>pullicaecorum</i>	3107	HPS6
UP000014012	1315976	<i>Plesiomonas</i>	<i>shigelloides</i>	3377	Retrotran_gag_2
UP000014174	1150600	<i>Arcticibacter</i>	<i>svalbardensis</i>	4309	DUF3538, DUF1689, TMEM174, BTV_NS2, DUF4628, Pox_A3L
UP000014216	1286635	<i>Desulfotignum</i>	<i>phosphitoxidans</i>	4515	IGR, DUF531
UP000014227	1303518	<i>Chthonomonas</i>	<i>calidirosea</i>	2809	TMIE, Dendrin

UP000014417	883161	<i>Propionimicrobium</i>	<i>lymphophilum</i>	2076	AGTRAP, DUF2576
UP000014461	1331007	<i>Agarivorans</i>	<i>albus</i>	4397	Mei4, Av_adeno_fibre, Seleni-umBinding, AlcCBM31
UP000014822	1330036	<i>Osedax</i>	<i>symbiont</i>	4383	Nucleoporin_C
UP000014827	1112230	<i>Chlamydia</i>	<i>psittaci</i>	2863	LtuB, ANTH, Chlam_OMP3, Peptidase_C65, Chlam_vir, 7tm_4, DUF1137, DUF5423, DUF1547, DUF720, DUF5421, DUF1548, ChlamPMP_M
UP000014923	941824	<i>Thermobrachium</i>	<i>celere</i>	2370	MRP-S25
UP000014962	641526	<i>Winogradskyella</i>	<i>psychrotolerans</i>	4023	ORMDL, Ephrin_lbd
UP000015346	1123069	<i>Rubellimicrobium</i>	<i>thermophilum</i>	3244	
UP000015347	1123237	<i>Salipiger</i>	<i>mucosus</i>	5583	EF_assoc_1, Claudin_3
UP000015351	1123360	<i>Litoreibacter</i>	<i>arenae</i>	3640	
UP000015559	1163617	<i>Sulfuricella</i>	<i>denitrificans</i>	3071	SF3b1
UP000015924	1384484	<i>Adlercreutzia</i>	<i>equolifaciens</i>	2281	ProSAAS
UP000016057	1234409	<i>Catelicoccus</i>	<i>marimammalium</i>	1196	DUF3385
UP000016160	1347342	<i>Formosa</i>	<i>agariphila</i>	3557	DUF4107
UP000016368	887062	<i>Hylemonella</i>	<i>gracilis</i>	3342	DUF4510
UP000016462	1330458	<i>Agrococcus</i>	<i>pavilionensis</i>	2776	
UP000016519	1321816	<i>Alloscardovia</i>	<i>omnicolens</i>	1649	Fiji_64_capsid, zf-UBR
UP000016843	1123057	<i>Rhodonellum</i>	<i>psychrophilum</i>	4904	Erp_C
UP000016901	891974	<i>Plautia</i>	<i>stali</i>	5007	DUF4755, DUF1472
UP000016960	582515	<i>Rubidibacter</i>	<i>lacunae</i>	3455	Pertus-S5-tox, AA_permease_N
UP000017081	1319815	<i>Cetobacterium</i>	<i>somerae</i>	2974	CNOT1_TTP_bind
UP000017148	1313304	<i>Chitinivibrio</i>	<i>alkaliphilus</i>	2304	B3
UP000017429	1379858	<i>Mucispirillum</i>	<i>schaedleri</i>	2091	COBRA, Viral_P18
UP000017747	994573	<i>Youngiibacter</i>	<i>fragilis</i>	3736	PV_NSP1
UP000017813	641147	<i>Simonsiella</i>	<i>muelleri</i>	2220	S1-like, DUF1136, DUF4580, RasGEF_N
UP000017819	631454	<i>Lutibaculum</i>	<i>baratangense</i>	4164	Ferlin_C, Mit_ribos_Mrp51
UP000017842	1116472	<i>Methyloglobulus</i>	<i>morosus</i>	3737	Mtr2, RE_Bsp6I
UP000017881	1260251	<i>Spiribacter</i>	<i>salinus</i>	1684	Nup192
UP000017958	1263095	<i>Paraprevotella</i>	<i>clara</i>	2847	DUF5041
UP000018034	1263099	<i>Parasutterella</i>	<i>excrementihominis</i>	2228	
UP000018109	1263073	<i>Dorea</i>	<i>formicigenerans</i>	2461	Tir_receptor_M
UP000018126	1408226	<i>Vagococcus</i>	<i>lutrae</i>	1736	
UP000018227	592026	<i>Catonella</i>	<i>morbi</i>	3288	SSP160, COBRA1, PRP1_N
UP000018296	1395513	<i>Sporolactobacillus</i>	<i>laevolacticus</i>	3497	DUF3287, Colicin_im, Brr6 like C C, Ral
UP000018435	1003237	<i>Nitrospirillum</i>	<i>amazonense</i>	3357	
UP000018458	762983	<i>Succinatimonas</i>	<i>hippei</i>	2169	
UP000018466	796942	<i>Stomatobaculum</i>	<i>longum</i>	2070	OspD, DUF384
UP000018680	1307761	<i>Salinispira</i>	<i>pacifica</i>	3350	

UP000018766	1414851	<i>Pelistega</i>	<i>indica</i>	2121	Tma16, Aquarius_N
UP000018780	999552	<i>Leisingera</i>	<i>methylohalidivorans</i>	4508	
UP000018840	1403945	<i>Negativicoccus</i>	<i>succinicivorans</i>	1679	
UP000018843	1403948	<i>Varibaculum</i>	<i>cambriense</i>	2003	Adeno_E3_CR2
UP000018850	1286632	<i>Zhouia</i>	<i>amyolytica</i>	3362	Blt1_C
UP000018901	880074	<i>Barnesiella</i>	<i>viscericola</i>	2487	Cep3
UP000019023	694431	<i>Desulfurella</i>	<i>acetivorans</i>	1825	
UP000019030	1441930	<i>Chania</i>	<i>multitudinisentens</i>	4521	DHNA
UP000019050	592010	<i>Abiotrophia</i>	<i>defectiva</i>	1943	Erv26
UP000019062	1227360	<i>Viridibacillus</i>	<i>arenosi</i>	4296	
UP000019063	1317118	<i>Roseivivax</i>	<i>atlanticus</i>	4264	
UP000019112	1399147	<i>Holospira</i>	<i>obtusa</i>	1116	
UP000019151	861299	<i>Gemmatirosa</i>	<i>kalamazoonesis</i>	6261	
UP000019190	1432561	<i>Klebsiella</i>	<i>pneumoniae</i>	5313	COX7C, DUF4165
UP000019205	314285	<i>Congregibacter</i>	<i>litoralis</i>	3868	
UP000019225	1449976	<i>Kutzneria</i>	<i>albida</i>	8775	GP70, DUF3523, Trans-glut prok
UP000019242	1121126	<i>Brochothrix</i>	<i>thermosphacta</i>	2589	Strabismus
UP000019276	1328313	<i>Catenovulum</i>	<i>agarivorans</i>	3835	
UP000019277	909613	<i>Actinokineospora</i>	<i>spheciospongiae</i>	6610	
UP000019325	313624	<i>Nodularia</i>	<i>spumigena</i>	5211	CENP-B_dimeris, IL12, DUF4499, FAM47, KRTDAP
UP000019402	869213	<i>Saccharicrinis</i>	<i>fermentans</i>	4663	Siah-Interact_N
UP000019423	1227739	<i>Hymenobacter</i>	<i>swuensis</i>	4612	NADPH_Ox
UP000019464	1229521	<i>Nitrincola</i>	<i>nitratireducens</i>	4019	
UP000019485	479430	<i>Actinospica</i>	<i>robiniae</i>	191	
UP000019486	1385369	<i>Skermanella</i>	<i>stibiiresistens</i>	7269	
UP000019593	1294273	<i>Roseibacterium</i>	<i>elongatum</i>	3433	Ribosomal_L23eN
UP000019656	1196095	<i>Gilliamella</i>	<i>apicola</i>	2784	Seadorna_VP6, PsaN
UP000019675	1145276	<i>Lysinibacillus</i>	<i>varians</i>	4504	Picornia_P3A
UP000019678	1192034	<i>Chondromyces</i>	<i>apiculatus</i>	9037	CX9C, Msg2_C, VWC, Lamprin, TILa
UP000019681	1403537	<i>Fervidicella</i>	<i>metallireducens</i>	2800	Rhabdo_glycop
UP000019753	948458	<i>Actinotalea</i>	<i>ferrariae</i>	3558	
UP000019755	1292022	<i>Curtobacterium</i>	<i>flaccumfaciens</i>	3386	
UP000019760	1231351	<i>Acidomonas</i>	<i>methanolica</i>	3270	
UP000019767	1164990	<i>Richelia</i>	<i>intracellularis</i>	7610	
UP000019771	1661	<i>Trueperella</i>	<i>pyogenes</i>	1984	
UP000019805	1437824	<i>Castellaniella</i>	<i>defragrans</i>	3575	DUF5401
UP000019849	69279	<i>Aquamicrobium</i>	<i>defluvii</i>	4454	
UP000021053	927661	<i>Cryptosporangium</i>	<i>arvum</i>	4033	

UP000023044	866499	<i>Cloacibacillus</i>	<i>evryensis</i>	1082	
UP000023435	1444315	<i>Lysobacter</i>	<i>capsici</i>	5139	HOASN
UP000023541	1317122	<i>Aquimarina</i>	<i>atlantica</i>	4786	DUF1041, UPF0506, Frizzled, WAP, Pox_P4A
UP000023772	1168034	<i>Draconibacterium</i>	<i>orientale</i>	3940	Peroxidase_2, Cbl_N
UP000024387	1379159	<i>Dyella</i>	<i>jiangningensis</i>	4342	Orbi_VP2, Chs3p
UP000024836	1461693	<i>Actibacterium</i>	<i>atlanticum</i>	3126	Flavi_NS2B
UP000026714	1286631	<i>Sphaerotilus</i>	<i>natans</i>	4177	Nop53, PRTP
UP000027284	1312852	<i>Thermoanaerobaculum</i>	<i>aquaticum</i>	2252	ECR1_N
UP000027337	83219	<i>Sulfitobacter</i>	<i>mediterraneus</i>	3649	Pox_T4_C
UP000027341	28885	<i>Hydrogenovibrio</i>	<i>marinus</i>	2330	PH_2
UP000027395	388467	<i>Planktothrix</i>	<i>agardhii</i>	4186	Ost5, Latrotoxin_C
UP000027583	1382230	<i>Asaia</i>	<i>platycodi</i>	3273	
UP000027604	1349767	<i>Janthinobacterium</i>	<i>agaricidamosum</i>	5488	PDDEXK_6, HAP
UP000027616	1433126	<i>Mucinivorans</i>	<i>hirudinis</i>	2816	Myc_target_1, DNA_pol_phi, Efg1
UP000027647	1044	<i>Erythrobacter</i>	<i>longus</i>	3219	MGAT2, SRA1
UP000027665	2754	<i>Synergistes</i>	<i>jonesii</i>	2481	FWWh, PAPA-1
UP000027725	1185766	<i>Thioclava</i>	<i>dalianensis</i>	4007	Clc-like, DUF2053
UP000027821	1048983	<i>Anditalea</i>	<i>andensis</i>	4341	CD4-extracel
UP000027931	1157490	<i>Tumebacillus</i>	<i>flagellatus</i>	4452	Sep15_SelM
UP000027980	586416	<i>Terribacillus</i>	<i>aidingensis</i>	3230	DUF2456
UP000027982	661478	<i>Fimbriimonas</i>	<i>ginsengisoli</i>	4817	Peptidase_S77, Nup retrotrp bd
UP000027986	1274	<i>Dermacoccus</i>	<i>nishinomiyaensis</i>	2255	
UP000027997	305900	<i>Endozoicomonas</i>	<i>elysicola</i>	4147	HLH, Homeobox, Homeobox_KN, Sial-lect-inser, DUF3605, Uteroglobin, SOCS_box
UP000028323	1443103	<i>Snodgrassella</i>	<i>alvi</i>	1571	Adeno_knob
UP000028521	1197477	<i>Mangrovimonas</i>	<i>yunxiaonensis</i>	2307	
UP000028602	1005995	<i>Tatumella</i>	<i>ptyseos</i>	3337	Sushi_2
UP000028624	1005999	<i>Leminorella</i>	<i>grimontii</i>	3756	
UP000028680	666509	<i>Planktomarina</i>	<i>temperata</i>	3024	
UP000028702	1333998	<i>Tepidicaulis</i>	<i>marinus</i>	3398	
UP000028720	1453500	<i>Schleiferia</i>	<i>thermophila</i>	2301	RIIa
UP000028725	394096	<i>Hyalangium</i>	<i>minutum</i>	8967	HAUS2, Nodulin_late, LBP_BPI_CETP_C, CTU2, DUF2433, Telomere_Sde2_2
UP000028824	1105367	<i>Paenirhodobacter</i>	<i>enshiensis</i>	2781	
UP000028826	195105	<i>Haematobacter</i>	<i>massiliensis</i>	3806	
UP000028933	1338011	<i>Elizabethkingia</i>	<i>anophelis</i>	4061	DUF4574, ETC_C1_NDUFA5, Colipase-like
UP000028945	1072685	<i>Basilea</i>	<i>psittacipulmonis</i>	1452	
UP000028981	46914	<i>Devosia</i>	<i>riboflavina</i>	4273	NiFe_hyd_3_EhaA
UP000029085	1121014	<i>Arenimonas</i>	<i>donghaensis</i>	2685	

UP000029273	160660	<i>Acidihalobacter</i>	<i>prosperus</i>	2685	Transmemb_17
UP000029516	158822	<i>Cedecea</i>	<i>neteri</i>	4399	NADH-u_ox-rdase, LFY_SAM
UP000029541	1238	<i>Piscirickettsia</i>	<i>salmonis</i>	2947	IPK
UP000029622	1156417	<i>Caloranaerobacter</i>	<i>azorensis</i>	2148	
UP000029629	1401065	<i>Oligella</i>	<i>urethralis</i>	2118	zf-ZPR1
UP000029640	1265313	<i>Pseudohalaea</i>	<i>rubra</i>	2860	
UP000029644	221126	<i>Algibacter</i>	<i>lectus</i>	4609	ENTH, Xlink, Herpes_UL4
UP000029708	1543381	<i>Oleigrimonas</i>	<i>solis</i>	2676	
UP000029736	1524460	<i>Phaeodactylibacter</i>	<i>xiamenensis</i>	5064	HeLo, cwf18, DUF1221
UP000029737	414996	<i>Actinopolyspora</i>	<i>erythraea</i>	3972	Leptin, P_C, Cwf_Cwc_15
UP000029738	1479485	<i>Tolypothrix</i>	<i>bouteillei</i>	7755	RNA_bind, VMR2
UP000029864	1001240	<i>Cryobacterium</i>	<i>roopkundense</i>	3249	Prd1-P2
UP000029986	1453496	<i>Hafnia</i>	<i>alvei</i>	4059	7tm_2
UP000029990	1385518	<i>Knoellia</i>	<i>flava</i>	3373	DUF4904
UP000029995	1398085	<i>Inquilinus</i>	<i>limosus</i>	6228	DUF1948
UP000030004	1461694	<i>Pseudoceanicola</i>	<i>atlanticus</i>	4202	
UP000030147	1385514	<i>Pontibacillus</i>	<i>yanchengensis</i>	3964	AIM5, DUF3821, Baculo_p47, RSN1_7TM, PH_BEACH, DUF1712
UP000030170	1497020	<i>Neosynechococcus</i>	<i>sphagnicola</i>	2723	CALM_bind, DUF1673
UP000030184	504487	<i>Jejuia</i>	<i>pallidilutea</i>	3326	
UP000030185	153721	<i>Sporocytophaga</i>	<i>myxococcoides</i>	5042	Vac7, Defensin_big, Peptidase C33
UP000030300	2045	<i>Nocardioides</i>	<i>simplex</i>	5426	
UP000030380	505317	<i>Chelonobacter</i>	<i>oris</i>	2284	TPP1
UP000030826	370622	<i>Aureimonas</i>	<i>altamirensis</i>	3519	
UP000030856	2340	<i>Solemya</i>	<i>velum</i>	2657	Na_trans_assoc
UP000030901	1267021	<i>Frischella</i>	<i>perrara</i>	2270	Pox_RNA_Pol_22
UP000030982	1338436	<i>Sinomonas</i>	<i>humi</i>	3444	
UP000030988	1572751	<i>Porphyrobacter</i>	<i>mercurialis</i>	2758	
UP000030993	82374	<i>Anaerovibrio</i>	<i>lipolyticus</i>	2437	DCAF17
UP000031002	1348852	<i>Mumia</i>	<i>flava</i>	4037	
UP000031189	1577792	<i>Terrisporobacter</i>	<i>othiniensis</i>	3449	DUF357, KAR9
UP000031275	510955	<i>Chryseobacterium</i>	<i>solincola</i>	2087	PPI_Ypi1, DUF809
UP000031386	33033	<i>Parvimonas</i>	<i>micra</i>	1418	tRNA_synt_1c_R2, Subtilosin A, Fn bind
UP000031408	1349421	<i>Flaviumibacter</i>	<i>solisilvae</i>	4215	
UP000031518	454194	<i>Pyrinomonas</i>	<i>methylaliphatogenes</i>	3179	PPTA
UP000031549	1304833	<i>Hassallia</i>	<i>byssoides</i>	10137	DUF5373, Ndc80_HEC
UP000031552	340071	<i>Criblamydia</i>	<i>sequanensis</i>	2418	Dicistro_VP4, RasGAP, DUF3645, Mito_carr
UP000031561	1574623	<i>Lyngbya</i>	<i>confervoides</i>	6060	ATXN-1_C, ANAPC2, DUF4782
UP000031599	215803	<i>Enhygromyxa</i>	<i>salina</i>	8157	DUF2981, Kp4, MDM31 MDM32

UP000031623	40754	<i>Thioploca</i>	<i>ingrica</i>	3951	Peptidase_C71, Geminin, CLAMP, FAM92, MRG, MAP
UP000031631	1076588	<i>Thiolapillus</i>	<i>brandeum</i>	2824	Baculo_Y142
UP000031637	1223802	<i>Sulfuritalea</i>	<i>hydrogenivorans</i>	3578	Ribosomal_L19e
UP000031643	1384459	<i>Methyloceanibacter</i>	<i>caenitepidi</i>	3341	Dimer_Tnp_hAT
UP000031675	183763	<i>Streptomonospora</i>	<i>alba</i>	4307	Adeno_PIX, INT SG DDX CT C
UP000031938	889306	<i>Jeotgalibacillus</i>	<i>solii</i>	3938	SpoIISB_antitox, DUF4780, Ku PK bind,
UP000031959	1233231	<i>Scytonema</i>	<i>tolypothrichoides</i>	7078	DUF5494, DUF5355, DUF4603, DUF5424
UP000031980	1547597	<i>Sanguibacteroides</i>	<i>justesenii</i>	2587	Topoisom_I_N, TMEM72, Receptor_2B4, Casc1_N
UP000032120	55969	<i>Leucobacter</i>	<i>komagatae</i>	2703	Stb3, eIF-5a
UP000032229	1454006	<i>Siansivirga</i>	<i>zeaxanthinifaciens</i>	2744	AcMNPV_Ac109, hGDE central
UP000032232	935700	<i>Jannaschia</i>	<i>aquimarina</i>	4049	
UP000032233	1429043	<i>Dethiosulfatarculus</i>	<i>sandiegensis</i>	5395	
UP000032266	1445510	<i>Gynuella</i>	<i>sunshinyii</i>	5913	
UP000032336	1121877	<i>Ferrimicrobium</i>	<i>acidiphilum</i>	2974	
UP000032360	1280514	<i>Acidithrix</i>	<i>ferrooxidans</i>	3548	
UP000032361	1382798	<i>Tamlana</i>	<i>nanhaiensis</i>	3029	Utp11, Ribosomal_L27e, AAA_7, V1R, SOP4
UP000032368	1594576	<i>Mastigocladus</i>	<i>laminosus</i>	5930	PTPRCAP, PAT1
UP000032414	451	<i>Tatlockia</i>	<i>micdadei</i>	2989	CIMR, DNA_repr_REX1B, DUF4042, MMS19_N, Caleosin
UP000032417	1562970	<i>Fermentimonas</i>	<i>caenicola</i>	2391	DUF1759, DUF1959
UP000032438	80854	<i>Moritella</i>	<i>viscosa</i>	4219	CNF1
UP000032452	1618023	<i>Chroococcales</i>	<i>cyanobacterium</i>	4366	DUF863, KIX_2
UP000032503	110935	<i>Agreia</i>	<i>bicolorata</i>	3109	
UP000032515	1076	<i>Rhodopseudomonas</i>	<i>palustris</i>	5580	DUF3222, DUF5419
UP000032530	575	<i>Raoultella</i>	<i>planticola</i>	2923	zf-DNA_Pol
UP000032568	485447	<i>Thalassomonas</i>	<i>actiniarum</i>	5460	fn2, DUF2099, ELYS-bb, Med15_fungi
UP000032611	1486262	<i>Martellella</i>	<i>endophytica</i>	4020	PapJ, ISN1
UP000032668	1120923	<i>Acidocella</i>	<i>aminolytica</i>	3751	AflR
UP000032679	1231623	<i>Tanticharoenia</i>	<i>sakaeratensis</i>	3154	
UP000032680	1231350	<i>Acidisphaera</i>	<i>rubrifaciens</i>	2788	
UP000032749	698738	<i>Oleispira</i>	<i>antarctica</i>	3895	
UP000032809	1006576	<i>Defluviitoga</i>	<i>tunisiensis</i>	1811	Drf_GBD, UPF0113, DUF2683, DUF647, DUF4500
UP000032900	1236989	<i>Geofilum</i>	<i>rubicundum</i>	4411	OSR1_C, L51_S25_CI-B8
UP000033070	1188319	<i>Ferriphaseelus</i>	<i>amnicola</i>	2638	DUF5449, Filo_VP35
UP000033103	187101	<i>Sneathia</i>	<i>amni</i>	1182	FragX_IP
UP000033109	400092	<i>Pontibacter</i>	<i>korensis</i>	4103	SEA, DUF5418, DUF5045, Vps52, PAR1
UP000033220	1150469	<i>Pararhodospirillum</i>	<i>photometricum</i>	3275	Herpes_LMP2, TFIIB
UP000033393	68170	<i>Lechevalieria</i>	<i>aerocolonigenes</i>	8237	NTR, PMD, zf-RING_11

UP000033607	1637645	<i>Limnoraphis</i>	<i>robusta</i>	5035	Gyro_capsid, Ima1_N	DUF2678,
UP000033614	728	<i>Avibacterium</i>	<i>paragallinarum</i>	2171		
UP000033651	345309	<i>Luteibacter</i>	<i>yeojuensis</i>	3844		
UP000033764	332411	<i>Aquitalea</i>	<i>magnusonii</i>	4103		
UP000033774	552518	<i>Elstera</i>	<i>litoralis</i>	3298	Dsh_C	
UP000034029	407035	<i>Salinicoccus</i>	<i>halodurans</i>	2634	Pam17	
UP000034071	914150	<i>Kangiella</i>	<i>geojedonensis</i>	2207	7TM_GPCR_Srab, PUL	
UP000034076	270498	<i>Catabacter</i>	<i>hongkongensis</i>	3148		
UP000034392	1267766	<i>Atererythrobacter</i>	<i>atlanticus</i>	3254		
UP000034491	1549748	<i>Kiloniella</i>	<i>litopenaei</i>	3735		
UP000034681	317619	<i>Prochlorothrix</i>	<i>hollandica</i>	3617	Tim29, SL4P	
UP000034883	927083	<i>Sandaracinus</i>	<i>amyolyticus</i>	8941	DUF4735, Antistatin	DYW_deaminase,
UP000035032	59505	<i>Actinotignum</i>	<i>schaalii</i>	1443		
UP000035036	483547	<i>Geoalkalibacter</i>	<i>subterraneus</i>	2987	Tnp_zf-ribbon_2	
UP000035062	1195246	<i>Alishewanella</i>	<i>agri</i>	3152	CSTF2_hinge	
UP000035100	1123501	<i>Wenxinia</i>	<i>marina</i>	4030	DUF2464	
UP000035170	34073	<i>Variovorax</i>	<i>paradoxus</i>	6788	NB, DUF1860	
UP000035265	264251	<i>Cellulosimicrobium</i>	<i>funkei</i>	3980		
UP000035287	1348774	<i>Croceicoccus</i>	<i>naphthovorans</i>	3411	DUF1296	
UP000035337	1408281	<i>Endomicrobium</i>	<i>proavitum</i>	1336	DUF2122	
UP000035352	413882	<i>Polyangium</i>	<i>brachysporum</i>	5541	Pex26	
UP000035579	48	<i>Archangium</i>	<i>gephyra</i>	10110	Myb_DNA-bind_3, Extensin_2, Laminin_EGF, Mucin2_WxxW	DZF,
UP000035996	157733	<i>Anaerobacillus</i>	<i>macyae</i>	3973	MIF4G_like_2	
UP000036352	988812	<i>Marinovum</i>	<i>algicola</i>	4976		
UP000036700	445709	<i>Pandoraea</i>	<i>thiooxydans</i>	3963	Erythrovirus_X	
UP000036771	1629334	<i>Caedibacter</i>	<i>varicaedens</i>	1663		
UP000036780	1473	<i>Virgibacillus</i>	<i>pantotheticus</i>	3923	DUF2258, SMP_LBD, DWNN, MADF DNA_bdg	Herpes_UL92, Arrestin_C,
UP000037269	47500	<i>Aneurinibacillus</i>	<i>migulanus</i>	5649	RNA_pol_Rpb4, DUF3599, LSM14, CHDNT, GLYCAM-1	zf-RING_9,
UP000037784	872965	<i>Ardenticatena</i>	<i>maritima</i>	3144		
UP000037939	857265	<i>Amantichitinum</i>	<i>ursilacus</i>	4368		
UP000037969	2026	<i>Thermoactinomyces</i>	<i>vulgaris</i>	3820	zf-PARP, GRA6, NDUF_B12	
UP000038011	1514904	<i>Ahrensia</i>	<i>marina</i>	3161		
UP000046155	499207	<i>Syntrophaceticus</i>	<i>schinkii</i>	3167		
UP000048984	665126	<i>Prosthecomicrobium</i>	<i>hirschii</i>	5501	Reovirus_L2	
UP000050280	1300341	<i>Croceitalea</i>	<i>dokdonensis</i>	3682		
UP000050326	36849	<i>Oxobacter</i>	<i>pfennigii</i>	4273	TRAP_alpha, DUF3824	Innexin,
UP000050331	1472767	<i>Lentibacillus</i>	<i>amyloliquefaciens</i>	3553	DUF2951	

UP000050417	1134406	<i>Ornatilinea</i>	<i>apprima</i>	3344	NMT, DnaJ-X
UP000050430	229920	<i>Leptolinea</i>	<i>tardivitalis</i>	2936	
UP000050465	1666911	<i>Phormidesmis</i>	<i>priestleyi</i>	4851	DBB, ArgoMid
UP000050471	154981	<i>Aliiroseovarius</i>	<i>crassostreae</i>	3465	
UP000050501	229921	<i>Levilinea</i>	<i>saccharolytica</i>	3080	
UP000050509	186479	<i>Kouleothrix</i>	<i>aurantiaca</i>	7836	Desmo_N
UP000050514	360411	<i>Bellilinea</i>	<i>caldifistulae</i>	2990	DUF3827
UP000050544	869279	<i>Thermanaerothrix</i>	<i>daxensis</i>	2394	NeA_P2

Supplementary Table 4 Domain uniqueness and duplication rates were analysed in terms of bacterial lifestyle. Proteomes of 5 free-living, 7 parasitic, 3 sit-and-wait, and 2 vector-borne bacterial species were dissected in terms of domain distributions. All bacteria were classified according to a previous study [1]. It can be observed that free-living and sit-and-wait bacteria have higher domain duplication rates in their proteomes while parasitic and vector-borne pathogens tend to have less duplicated domains.

Proteome ID	Taxonomy ID	Genus	Species	Lifestyle	Proteome Size	Domain0	Domain1	Domain2	Domain3	All Domains	Non-redundant Domains	Duplicated Domains	Duplication Rates
UP000000532	300852	<i>Thermus</i>	<i>thermophilus</i>	Free-living	2227	303	950	420	554	4374	1837	768	41.81%
UP000000609	272624	<i>Legionella</i>	<i>pneumophila</i>		2930	584	1106	536	704	5481	2160	961	44.49%
UP000002207	240015	<i>Acidobacterium</i>	<i>capsulatum</i>		3363	678	1164	606	915	6591	2234	1011	45.26%
UP000002208	546414	<i>Deinococcus</i>	<i>deserti</i>		3459	651	1315	624	869	6660	2115	988	46.71%
UP000002008	324602	<i>Chloroflexus</i>	<i>aurantiacus</i>		3850	536	1415	729	1170	8920	2293	1167	50.89%
UP000002741	573234	<i>Hodgkinia</i>	<i>cicadicola</i>	Parasitic	169	45	87	22	15	204	182	16	8.79%
UP000000423	273119	<i>Ureaplasma</i>	<i>parvum</i>		611	159	227	98	127	999	626	149	23.80%
UP000000528	272635	<i>Mycoplasma</i>	<i>pulmonis</i>		778	219	269	135	155	1247	704	187	26.56%
UP000002480	272947	<i>Rickettsia</i>	<i>proWazekii</i>		834	61	388	155	230	1752	1072	301	28.08%
UP000000429	85962	<i>Helicobacter</i>	<i>pylori</i>		1553	310	663	281	299	2568	1379	444	32.20%
UP000002671	227377	<i>Coxiella</i>	<i>burnetii</i>		1815	456	639	315	402	3148	1577	565	35.83%
UP000002719	359391	<i>Brucella</i>	<i>abortus</i>		3022	489	1210	574	750	5671	2158	867	40.18%
UP000000579	71421	<i>Haemophilus</i>	<i>influenzae</i>	Sit-and-wait	1707	96	792	362	457	3596	1839	650	35.35%
UP000000815	632	<i>Yersinia</i>	<i>pestis</i>		3909	417	1735	803	945	7565	2817	1175	41.71%
UP000000605	272560	<i>Burkholderia</i>	<i>pseudomallei</i>		5717	669	2349	1204	1495	11518	2948	1452	49.25%
UP000001943	212042	<i>Anaplasma</i>	<i>phagocytophilum</i>	Vector-borne	1330	530	459	130	211	1664	991	292	29.47%
UP000001174	177416	<i>Francisella</i>	<i>tularensis</i>		1528	231	605	333	359	2949	1545	531	34.37%

References

- [1] Wang L, Liu Z, Dai S, Yan J, Wise MJ. The Sit-and-Wait Hypothesis in Bacterial Pathogens: A Theoretical Study of Durability and Virulence. *Frontiers in Microbiology*. 2017; 8.