



Referenz/Aktenzeichen: L203-1788

Differenzliste Bakterien

Gemäss der Einschliessungsverordnung (ESV) ist das Bundesamt für Umwelt (BAFU) beauftragt, eine öffentlich zugängliche Liste zu führen, in der relevante Organismen nach dem Grad des Risikos für Mensch, Tier und Umwelt, der mit ihrem Vorkommen einhergeht, einer von vier Risikogruppen zugeordnet werden (Art. 26 ESV). Diese Listen beinhalten Bakterien, Viren, Parasiten und Pilze. Die publizierten Organismenlisten werden periodisch überarbeitet und ergänzt, wobei neue wissenschaftliche Erkenntnisse, Änderungen beim Stand der Technik, entdeckte Fehler usw. einfließen. Inhaltliche Änderungen werden immer im Einvernehmen mit dem BAG, dem SECO, dem BVET, dem BLW und der Suva und nach Anhörung der EFBS vorgenommen. Um die Nachvollziehbarkeit von Gruppierungen von Bakterien zu gewährleisten, werden in der untenstehenden Liste alle umgruppierten Organismen aufgeführt. Die Differenzlisten beinhalten nur die umgruppierten und die neu eingruppierten Organismen. Nicht in dieser Liste aufgeführt sind demnach Organismen mit geänderten Namen und andere Anpassungen.

1 Änderungen der Gruppierung (Vergleich Version 2003 zu Version Juli 2011)

Die Liste wurde in der Zeit zwischen 2003 und 2011 nie neu aufgelegt, dies obwohl in den vergangenen Jahren etliche Bakterien auf Grund neuer Kenntnisse neu gruppiert wurden. Der Umfang der Änderungen ist daher entsprechend gross.

Umgruppierte Organismen

Organismus	Gruppe 03	Gruppe 11
Acholeplasma brassicae	1	2
Actinobacillus indolicus	1	2
Actinobacillus minor	1	2
Actinobacillus succinogenes	1	2
Actinobacillus porcinus	1	2
Actinobacillus scotiae	1	2
Actinomadura macra	1	2
Actinomyces denticolens	1	2
Actinomyces georgiae	1	2
Actinomyces howellii	1	2
Actinomyces humiferus	1	2
Actinomyces slackii	1	2
Aeromonas encheleia	1	2
Aeromonas enteropelogenes	1	2
Aeromonas eucrenophila	1	2
Aeromonas ichthiosmia	1	2
Aeromonas media	1	2
Agrobacterium tumefaciens	1	2

<i>Alcaligenes denitrificans</i>	2	1
<i>Alcaligenes xylooxidans</i>	2	1
<i>Amycolatopsis orientalis</i> subsp. <i>orientalis</i>	1	2
<i>Arcobacter nitrofigilis</i>	1	2
<i>Arcobacter skirrowii</i>	1	2
<i>Bacillus circulans</i>	1	2
<i>Bacillus coagulans</i>	1	2
<i>Bacteroides galacturonicus</i>	1	2
<i>Bacteroides merdae</i>	1	2
<i>Bacteroides vulgatus</i>	1	2
<i>Bifidobacterium denticolens</i>	1	2
<i>Bifidobacterium inopinatum</i>	1	2
<i>Borrelia japonica</i>	1	2
<i>Borrelia lusitaniae</i>	1	2
<i>Brevibacterium casei</i>	1	2
<i>Brevundimonas vesicularis</i>	1	2
<i>Burkholderia andropogonis</i>	1	2
<i>Burkholderia plantarii</i>	1	2
<i>Campylobacter helveticus</i>	1	2
<i>Campylobacter showae</i>	1	2
<i>Clostridium scatologenes</i>	1	2
<i>Coprococcus catus</i>	1	2
<i>Edwardsiella hoshinae</i>	1	2
<i>Enterobacter dissolvens</i>	1	2
<i>Enterobacter nimipressuralis</i>	1	2
<i>Enterobacter pyrinus</i>	1	2
<i>Enterococcus casseliflavus</i>	1	2
<i>Enterococcus cecorum</i>	1	2
<i>Erwinia amylovora</i>	2	3
<i>Erwinia cacticida</i>	1	2
<i>Erwinia carnegieana</i>	1	2
<i>Erwinia carotovora</i> subsp. <i>atroseptica</i>	1	2
<i>Erwinia carotovora</i> subsp. <i>betavasculorum</i>	1	2
<i>Erwinia carotovora</i> subsp. <i>carotovora</i>	1	2
<i>Erwinia carotovora</i> subsp. <i>wasabiae</i>	1	2
<i>Erwinia cyripedii</i>	1	2
<i>Erwinia mallotivora</i>	1	2
<i>Erwinia nigrifluens</i>	1	2
<i>Erwinia persicina</i>	1	2
<i>Erwinia psidii</i>	1	2
<i>Erwinia pyrifoliae</i>	1	2
<i>Erwinia quercina</i>	1	2
<i>Erwinia rhapontici</i>	1	2
<i>Erwinia rubrifaciens</i>	1	2
<i>Erwinia salicis</i>	1	2
<i>Erwinia tracheiphila</i>	1	2
<i>Erysipelothrix tonsillarum</i>	1	2

Eubacterium coprostanoligenes	1	2
Eubacterium multiforme	1	2
Eubacterium saburreum	1	2
Flavobacterium aquatile	1	2
Flexibacter japonensis	1	2
Flexibacter litoralis	1	2
Formivibrio citricus	1	2
Francisella tularensis subsp. holarctica	2	3
Francisella tularensis subsp. mediasiatica	2	3
Fusobacterium perfoetens	1	2
Fusobacterium simiae	1	2
Gordonia amarae	1	2
Gordonia hirsuta	1	2
Haemophilus haemolyticus	1	2
Halomonas aquamarina	1	2
Halomonas canadensis	1	2
Halomonas cupida	1	2
Helicobacter felis	1	2
Helicobacter nemestrinae	1	2
Helicobacter pametensis	1	2
Herbaspirillum rubrisubalbicans	1	2
Herbaspirillum seropedicae	1	2
Lactobacillus rhamnosus	2	1
Leptospira biflexa	1	2
Leptospira meyeri	1	2
Leptospira parva	1	2
Leptospira wolbachii	1	2
Moraxella (Branhamella) caviae	1	2
Moraxella (Branhamella) cuniculi	1	2
Moraxella bovis	1	2
Moraxella canis	1	2
Mycobacterium aurum	1	2
Mycobacterium brumae	1	2
Mycobacterium chitae	1	2
Mycobacterium madagascariense	1	2
Mycobacterium mageritense	1	2
Mycobacterium tuberculosis subsp. caprae	2	3
Mycobacterium tuberculosis subsp. tuberculosis	2	3
Mycoplasma alvi	1	2
Mycoplasma anseris	1	2
Mycoplasma capricolum subsp. capripneumoniae	2	3
Grapevine flavescence dorée	2	3
Neisseria macacae	1	2
Paenibacillus larvae subsp. larvae	1	2
Paenibacillus larvae subsp. pulvifaciens	1	2
Pasteurella aerogenes	1	2
Pasteurella avium	1	2

Prevotella dentalis	1	2
Prevotella enoeca	1	2
Prevotella heparinolytica	1	2
Prevotella oulorum	1	2
Ralstonia eutropha	1	2
Ralstonia pickettii	1	2
Rickettsia parkeri	2	3
Rickettsia peacocki	1	3
Rickettsia rhipicephali	2	3
Spiroplasma chrysopicola	1	2
Spiroplasma citri	1	2
Xanthomonas citri	1	2

Neu gruppierte Organismen

Organismus	Gruppe 03	Gruppe 11
<i>Abiotrophia balaenopterae</i>		2
<i>Acetanaerobacterium elongatum</i>		1
<i>Acetobacter cerevisiae</i>		1
<i>Acetobacter cibirongensis</i>		1
<i>Acetobacter estunensis</i>		1
<i>Acetobacter indonesiensis</i>		1
<i>Acetobacter lovaniensis</i>		1
<i>Acetobacter malorum</i>		1
<i>Acetobacter oboediens</i>		1
<i>Acetobacter orientalis</i>		1
<i>Acetobacter orleanensis</i>		1
<i>Acetobacter pasteurianus</i>		1
<i>Acetobacter syzygii</i>		1
<i>Acetobacter tropicalis</i>		1
<i>Acetobacter xylinus</i>		1
<i>Acetobacterium tundrae</i>		1
<i>Acholeplasma pleciae</i>		2
<i>Acholeplasma vituli</i>		2
<i>Achromobacter denitrificans</i>		1
<i>Achromobacter insolitus</i>		1
<i>Achromobacter spanius</i>		1
<i>Achromobacter xylooxidans</i>		1
<i>Achromobacter xylooxidans subsp. denitrificans</i>		1
<i>Achromobacter xylooxidans subsp. xylooxidans</i>		1
<i>Acidilobus aceticus</i>		1
<i>Acidiphilium acidophilum</i>		1
<i>Acidisphaera rubrifaciens</i>		1
<i>Acidithiobacillus albertensis</i>		1
<i>Acidithiobacillus caldus</i>		1
<i>Acidithiobacillus ferrooxidans</i>		1
<i>Acidithiobacillus thiooxidans</i>		1
<i>Acidovorax defluvii</i>		1
<i>Acidovorax valerianellae</i>		1
<i>Acinetobacter baylyi</i>		2
<i>Acinetobacter gernerii</i>		2
<i>Acinetobacter grimontii</i>		2
<i>Acinetobacter parvus</i>		2
<i>Acinetobacter schindleri</i>		2
<i>Acinetobacter tjernbergiae</i>		2
<i>Acinetobacter townneri</i>		2
<i>Acinetobacter ursingii</i>		2
<i>Acrocarpospora macrocephala</i>		1
<i>Acrocarpospora pleiomorpha</i>		1
<i>Actinoalloteichus cyanogriseus</i>		1
<i>Actinobacillus arthritidis</i>		2
<i>Actinobacillus equuli subsp. equuli</i>		2
<i>Actinobacillus equuli subsp. haemolyticus</i>		2
<i>Actinobaculum urinale</i>		2
<i>Actinobispora alaniniphila</i>		1
<i>Actinobispora aurantiaca</i>		1
<i>Actinobispora xinjiangensis</i>		1

<i>Actinocorallia aurantiaca</i>	1
<i>Actinocorallia glomerata</i>	1
<i>Actinocorallia libanotica</i>	1
<i>Actinocorallia longicatena</i>	1
<i>Actinokineospora auranticolor</i>	1
<i>Actinokineospora enzanensis</i>	1
<i>Actinomadura catellatispora</i>	1
<i>Actinomadura cremea</i>	1
<i>Actinomadura formosensis</i>	1
<i>Actinomadura glauciflava</i>	1
<i>Actinomadura glomerata</i>	1
<i>Actinomadura latina</i>	1
<i>Actinomadura longicatena</i>	1
<i>Actinomadura mexicana</i>	2
<i>Actinomadura namibiensis</i>	2
<i>Actinomadura napierensis</i>	1
<i>Actinomadura viridilutea</i>	1
<i>Actinomyces bowdenii</i>	2
<i>Actinomyces canis</i>	2
<i>Actinomyces cardiffensis</i>	2
<i>Actinomyces catuli</i>	2
<i>Actinomyces coleocanis</i>	2
<i>Actinomyces dentalis</i>	2
<i>Actinomyces funkei</i>	2
<i>Actinomyces hongkongensis</i>	2
<i>Actinomyces marimammalium</i>	2
<i>Actinomyces nasicola</i>	2
<i>Actinomyces oricola</i>	2
<i>Actinomyces radidentis</i>	2
<i>Actinomyces suimastitidis</i>	2
<i>Actinomyces urogenitalis</i>	2
<i>Actinomyces vaccimaxillae</i>	2
<i>Actinoplanes capillaceus</i>	1
<i>Actinoplanes friuliensis</i>	1
<i>Actinopolymorpha singaporensis</i>	2
<i>Actinosynnema pretiosum</i>	1
<i>Adhaeribacter aquaticus</i>	1
<i>Advenella incenata</i>	1
<i>Aequorivita antarctica</i>	1
<i>Aequorivita crocea</i>	1
<i>Aequorivita lipolytica</i>	1
<i>Aequorivita sublithicola</i>	1
<i>Aerococcus sanguinicola</i>	2
<i>Aerococcus urinaequi</i>	2
<i>Aerococcus urinaehominis</i>	2
<i>Aeromicrobium alkaliterrae</i>	1
<i>Aeromicrobium marinum</i>	1
<i>Aeromonas culicicola</i>	2
<i>Aeromonas hydrophila</i> subsp. <i>dhakensis</i>	2
<i>Aeromonas hydrophila</i> subsp. <i>ranae</i>	2
<i>Aeromonas molluscorum</i>	2
<i>Aeromonas salmonicida</i> subsp. <i>pectinolytica</i>	2
<i>Aeromonas simiae</i>	2
<i>Aeropyrum camini</i>	1

<i>Aestuariibacter halophilus</i>	1
<i>Aestuariibacter salexigens</i>	1
<i>Afipia birgiae</i>	2
<i>Afipia massiliensis</i>	2
<i>Agreia bicolorata</i>	1
<i>Agreia pratensis</i>	1
<i>Agrobacterium larrymoorei</i>	2
<i>Agrococcus baldri</i>	1
<i>Agromyces albus</i>	1
<i>Agromyces aurantiacus</i>	1
<i>Agromyces bracchium</i>	1
<i>Agromyces hippuratus</i>	1
<i>Agromyces italicus</i>	1
<i>Agromyces lapidis</i>	1
<i>Agromyces luteolus</i>	1
<i>Agromyces neolithicus</i>	1
<i>Agromyces rhizosphaerae</i>	1
<i>Agromyces salentinus</i>	1
<i>Agromyces subbeticus</i>	1
<i>Albibacter methylovorans</i>	1
<i>Albidovulum inexpectatum</i>	1
<i>Alcaligenes faecalis</i> subsp. <i>parafaecalis</i>	2
<i>Alcaligenes xylosoxidans</i>	1
<i>Alcanivorax borkumensis</i>	1
<i>Alcanivorax dieselolei</i>	1
<i>Alcanivorax jadensis</i>	1
<i>Alcanivorax venustensis</i>	1
<i>Algicola bacteriolytica</i>	1
<i>Algoriphagus antarcticus</i>	1
<i>Algoriphagus aquimarinus</i>	1
<i>Algoriphagus chordae</i>	1
<i>Algoriphagus halophilus</i>	1
<i>Algoriphagus locisalis</i>	1
<i>Algoriphagus ratkowskyi</i>	1
<i>Algoriphagus winogradskyi</i>	1
<i>Algoriphagus yeomjeoni</i>	1
<i>Alicyclophilus denitrificans</i>	1
<i>Alicyclobacillus acidiphilus</i>	1
<i>Alicyclobacillus acidocaldarius</i> subsp. <i>acidocaldarius</i>	1
<i>Alicyclobacillus acidocaldarius</i> subsp. <i>rittmannii</i>	1
<i>Alicyclobacillus disulfidooxidans</i>	1
<i>Alicyclobacillus herbarius</i>	1
<i>Alicyclobacillus hesperidum</i>	1
<i>Alicyclobacillus pomorum</i>	1
<i>Alicyclobacillus sendaiensis</i>	1
<i>Alicyclobacillus tolerans</i>	1
<i>Alicyclobacillus vulcanalis</i>	1
<i>Alishewanella fetalis</i>	2
<i>Alistipes finegoldii</i>	1
<i>Alistipes putredinis</i>	1
<i>Alkalibacillus haloalkaliphilus</i>	1
<i>Alkalibacillus salilacus</i>	1
<i>Alkalibacter saccharofermentans</i>	1
<i>Alkalibacterium iburiense</i>	1

Alkalibacterium olivapovliticus	1
Alkalibacterium psychrotolerans	1
Alkalilimnicola halodurans	1
Allochromatium minutissimum	1
Allochromatium vinosum	1
Allochromatium warmingii	1
Alteromonas addita	1
Alteromonas litorea	1
Alteromonas marina	1
Alteromonas stellipolaris	1
Alysiella crassa	1
Aminobacter ciceronei	1
Aminobacter lissarensis	1
Aminobacterium colombiense	1
Aminobacterium mobile	1
Aminomonas paucivorans	2
Ammoniphilus oxalaticus	1
Ammoniphilus oxalivorans	1
Amphibacillus fermentum	1
Amphibacillus tropicus	1
Amycolatopsis albidoflavus	1
Amycolatopsis balhimycina	1
Amycolatopsis decaplanina	1
Amycolatopsis eurytherma	1
Amycolatopsis kentuckyensis	1
Amycolatopsis keratiniphila	1
Amycolatopsis keratiniphila subsp. keratiniphila	2
Amycolatopsis keratiniphila subsp. nogabecina	2
Amycolatopsis lexingtonensis	1
Amycolatopsis lurida	1
Amycolatopsis palatopharyngis	2
Amycolatopsis plumensis	2
Amycolatopsis rifamycinica	1
Amycolatopsis rubida	1
Amycolatopsis sacchari	1
Amycolatopsis tolypomycina	1
Amycolatopsis vancoresmycina	1
Anaeroarcus burkinensis	1
Anaerobaculum mobile	1
Anaerobranca californiensis	1
Anaerobranca gottschalkii	1
Anaerococcus hydrogenalis	1
Anaerococcus lactolyticus	1
Anaerococcus octavius	1
Anaerococcus prevotii	1
Anaerococcus tetradius	1
Anaerococcus vaginalis	1
Anaerolinea thermophila	1
Anaeromusa acidaminophila	1
Anaeromyxobacter dehalogenans	1
Anaerophaga thermohalophila	1
Anaerovorax odorimutans	1
Anaplasma bovis	2
Anaplasma phagocytophilum	2

<i>Anaplasma platys</i>	2
<i>Ancylobacter rudongensis</i>	1
<i>Aneurinibacillus danicus</i>	1
<i>Aneurinibacillus terranovensis</i>	1
<i>Angulomicrobium amanitifforme</i>	1
<i>Anoxybacillus ayderensis</i>	1
<i>Anoxybacillus contaminans</i>	1
<i>Anoxybacillus flavithermus</i>	1
<i>Anoxybacillus gonensis</i>	1
<i>Anoxybacillus kestanbolensis</i>	1
<i>Anoxybacillus pushchinoensis</i>	1
<i>Anoxybacillus voinovskiensis</i>	1
<i>Antarctobacter heliothermus</i>	1
<i>Aquabacterium citratiphilum</i>	1
<i>Aquabacterium commune</i>	1
<i>Aquabacterium parvum</i>	1
<i>Aquaspirillum itersonii</i>	1
<i>Aquaspirillum peregrinum</i>	1
<i>Aquicella lusitana</i>	1
<i>Aquicella siphonis</i>	1
<i>Arcanobacterium hippocoleae</i>	2
<i>Arcanobacterium pluranimalium</i>	2
<i>Arcicella aquatica</i>	1
<i>Arcobacter cibarius</i>	2
<i>Arcobacter halophilus</i>	2
<i>Arthrobacter albus</i>	1
<i>Arthrobacter arilaitensis</i>	1
<i>Arthrobacter bergerei</i>	1
<i>Arthrobacter castelli</i>	1
<i>Arthrobacter chlorophenolicus</i>	1
<i>Arthrobacter flavus</i>	2
<i>Arthrobacter gangotriensis</i>	2
<i>Arthrobacter kerguelensis</i>	1
<i>Arthrobacter koreensis</i>	2
<i>Arthrobacter methylotrophus</i>	1
<i>Arthrobacter nitroguajacolicus</i>	1
<i>Arthrobacter parietis</i>	1
<i>Arthrobacter pigmenti</i>	1
<i>Arthrobacter psychrolactophilus</i>	1
<i>Arthrobacter psychrophenicus</i>	1
<i>Arthrobacter roseus</i>	1
<i>Arthrobacter ruscicus</i>	1
<i>Arthrobacter scleromae</i>	1
<i>Arthrobacter sulfonivorans</i>	1
<i>Arthrobacter tecti</i>	1
<i>Arthrobacter tumbae</i>	1
<i>Asticcacaulis taihuensis</i>	1
<i>Atopobacter phocae</i>	2
<i>Aurantimonas coralicida</i>	1
<i>Avibacterium avium</i>	2
<i>Avibacterium gallinarum</i>	2
<i>Avibacterium paragallinarum</i>	2
<i>Avibacterium volantium</i>	2
<i>Azoarcus buckelii</i>	1

<i>Azospira oryzae</i>	1
<i>Azospirillum doebereineriae</i>	1
<i>Azospirillum oryzae</i>	1
<i>Bacillus acidicola</i>	1
<i>Bacillus aeolius</i>	1
<i>Bacillus algicola</i>	1
<i>Bacillus alveayuensis</i>	1
<i>Bacillus aquimaris</i>	1
<i>Bacillus arenosi</i>	1
<i>Bacillus arseniciselenatis</i>	1
<i>Bacillus arsenicus</i>	1
<i>Bacillus arvi</i>	1
<i>Bacillus asahii</i>	1
<i>Bacillus barbaricus</i>	1
<i>Bacillus bataviensis</i>	1
<i>Bacillus bogoriensis</i>	1
<i>Bacillus cibi</i>	1
<i>Bacillus decolorationis</i>	1
<i>Bacillus drentensis</i>	1
<i>Bacillus fordii</i>	1
<i>Bacillus fumarioli</i>	1
<i>Bacillus funiculus</i>	1
<i>Bacillus galactosidilyticus</i>	1
<i>Bacillus gelatini</i>	1
<i>Bacillus globisporus</i> subsp. <i>marinus</i>	1
<i>Bacillus herbersteinensis</i>	1
<i>Bacillus humi</i>	1
<i>Bacillus hwajinpoensis</i>	1
<i>Bacillus indicus</i>	1
<i>Bacillus jeotgali</i>	1
<i>Bacillus litoralis</i>	1
<i>Bacillus luciferensis</i>	1
<i>Bacillus marisflavi</i>	1
<i>Bacillus muralis</i>	1
<i>Bacillus nealsonii</i>	1
<i>Bacillus novalis</i>	1
<i>Bacillus oshimensis</i>	1
<i>Bacillus psychrodurans</i>	1
<i>Bacillus psychrotolerans</i>	1
<i>Bacillus saliphilus</i>	1
<i>Bacillus selenitireducens</i>	1
<i>Bacillus shackletonii</i>	1
<i>Bacillus siralis</i>	1
<i>Bacillus soli</i>	1
<i>Bacillus sonorensis</i>	1
<i>Bacillus subterraneus</i>	1
<i>Bacillus thermantarcticus</i>	1
<i>Bacillus thermocloacae</i>	1
<i>Bacillus thermodenitrificans</i>	1
<i>Bacillus velezensis</i>	1
<i>Bacillus vietnamensis</i>	1
<i>Bacillus vireti</i>	1
<i>Bacteriovorax litoralis</i>	1
<i>Bacteriovorax marinus</i>	1

<i>Bacteriovorax starrii</i>	1
<i>Bacteroides bivius</i>	2
<i>Bacteroides massiliensis</i>	2
<i>Bacteroides nordii</i>	2
<i>Bacteroides plebeius</i>	2
<i>Balneimonas flocculans</i>	2
<i>Bartonella birtlesii</i>	2
<i>Bartonella bovis</i>	2
<i>Bartonella capreoli</i>	2
<i>Bartonella chomelii</i>	2
<i>Bartonella koehlerae</i>	2
<i>Bartonella schoenbuchensis</i>	2
<i>Beijerinckia derxii</i>	1
<i>Bifidobacterium animalis</i> subsp. <i>animalis</i>	1
<i>Bifidobacterium animalis</i> subsp. <i>lactis</i>	1
<i>Bifidobacterium psychraerophilum</i>	1
<i>Bifidobacterium scardovii</i>	1
<i>Bifidobacterium thermacidophilum</i>	1
<i>Bifidobacterium thermacidophilum</i> subsp. <i>porcinum</i>	1
<i>Bizionia saleffrena</i>	1
<i>Blastococcus saxobsidens</i>	1
<i>Bordetella petrii</i>	2
<i>Borrelia afzelii</i>	2
<i>Borrelia sinica</i>	2
<i>Borrelia turcica</i>	2
<i>Bosea eneae</i>	1
<i>Bosea massiliensis</i>	1
<i>Bosea minatitlanensis</i>	1
<i>Brachybacterium fresconis</i>	1
<i>Brachybacterium muris</i>	1
<i>Brachybacterium sacelli</i>	1
<i>Bradyrhizobium betae</i>	1
<i>Bradyrhizobium canariense</i>	1
<i>Bradyrhizobium yuanmingense</i>	1
<i>Brevibacillus invocatus</i>	1
<i>Brevibacillus levickii</i>	1
<i>Brevibacillus limnophilus</i>	1
<i>Brevibacterium antiquum</i>	1
<i>Brevibacterium aurantiacum</i>	2
<i>Brevibacterium luteolum</i>	1
<i>Brevibacterium paucivorans</i>	2
<i>Brevibacterium permense</i>	2
<i>Brevibacterium sanguinis</i>	2
<i>Brevundimonas alba</i>	1
<i>Brevundimonas aurantiaca</i>	1
<i>Brevundimonas bacterioides</i>	1
<i>Brevundimonas bacterioides</i>	1
<i>Brevundimonas intermedia</i>	1
<i>Burkholderia anthina</i>	2
<i>Burkholderia caledonica</i>	2
<i>Burkholderia caribensis</i>	2
<i>Burkholderia cenocepacia</i>	2
<i>Burkholderia hospita</i>	2
<i>Burkholderia norimbergensis</i>	2

Burkholderia phytofirmans	2
Burkholderia thailandensis	2
Burkholderia tropica	2
Caenibacterium thermophilum	1
Caldanaerobacter subterraneus subsp. pacificus	1
Caldanaerobacter subterraneus subsp. subterraneus	1
Caldanaerobacter subterraneus subsp. tengcongensis	1
Caldanaerobacter subterraneus subsp. yonseiensis	1
Caldicellulosiruptor kristjanssonii	1
Caldicellulosiruptor lactoaceticus	1
Caldicellulosiruptor owensensis	1
Caldilinea aerophila	1
Caloramator coolhaasii	1
Caloramator viterbiensis	1
Campylobacter hominis	2
Campylobacter insulaenigrae	2
Campylobacter lanienae	2
Carboxydibrachium pacificum	1
Cardiobacterium valvarum	2
Carnimonas nigrificans	2
Catellatospora citrea	1
Caulobacter leidyi	1
Cellulophaga baltica	1
Cellulophaga lytica	1
Cellulophaga pacifica	1
Clostridium colicanis	2
Comamonas denitrificans	1
Coprobacillus cateniformis	1
Corynebacterium auriscanis	2
Corynebacterium casei	1
Corynebacterium caspium	1
Crocinitomix catalasitica	1
Curvibacter delicatus	1
Dechloromonas agitata	1
Dechloromonas denitrificans	1
Dechloromonas hortensis	1
Dechlorosoma suillum	1
Deferribacter abyssi	1
Defluviobacter lusatiensis	1
Defluvicoccus vanus	1
Dehalobacter restrictus	1
Dehalospirillum multivorans	1
Deinococcus indicus	1
Delftia acidovorans	1
Delftia tsuruhatensis	1
Dendrosporobacter quercicolus	1
Denitrobacterium detoxificans	1
Denitrovibrio acetiphilus	1
Desulfacinum hydrothermale	1
Desulfatibacillum aliphaticivorans	1
Desulfatibacillum alkenivorans	1
Desulfitobacterium chlororespirans	1
Desulfitobacterium metallireducens	1
Desulfobacca acetoxidans	1

<i>Desulfobacter giganteus</i>	1
<i>Desulfobacter halotolerans</i>	1
<i>Desulfobacula phenolica</i>	1
<i>Desulfobacula toluolica</i>	1
<i>Desulfobulbus mediterraneus</i>	1
<i>Desulfobulbus rhabdiformis</i>	1
<i>Desulfocapsa sulfexigens</i>	1
<i>Desulfocella halophila</i>	1
<i>Desulfofaba fastidiosa</i>	1
<i>Desulfofaba gelida</i>	1
<i>Desulfofaba hansenii</i>	1
<i>Desulfofrigus oceanense</i>	1
<i>Desulfomicrobium macestii</i>	1
<i>Desulfomicrobium orale</i>	1
<i>Desulfomonile limimaris</i>	1
<i>Desulfomusa hansenii</i>	1
<i>Desulfonatronum cooperativum</i>	1
<i>Desulfonatronum lacustre</i>	1
<i>Desulfonatronum thiodismutans</i>	1
<i>Desulfonauticus submarinus</i>	1
<i>Desulfonema ishimotonii</i>	1
<i>Desulfonispora thiosulfatigenes</i>	1
<i>Desulforegula conservatrix</i>	1
<i>Desulforhabdus amnigena</i>	1
<i>Desulforhopalus singaporensis</i>	1
<i>Desulforhopalus vacuolatus</i>	1
<i>Desulfosporosinus auripigmenti</i>	1
<i>Desulfosporosinus meridiei</i>	1
<i>Desulfotalea arctica</i>	1
<i>Desulfotalea psychrophila</i>	1
<i>Desulfotignum phosphitoxidans</i>	1
<i>Desulfotomaculum alkaliphilum</i>	1
<i>Desulfotomaculum auripigmentum</i>	1
<i>Desulfotomaculum carboxydivorans</i>	1
<i>Desulfotomaculum gibsoniae</i>	1
<i>Desulfotomaculum halophilum</i>	1
<i>Desulfotomaculum thermobenzoicum</i> subsp. <i>thermobenzoicum</i>	1
<i>Desulfotomaculum thermobenzoicum</i> subsp. <i>thermosyntrophicum</i>	1
<i>Desulfovibrio aespoeensis</i>	1
<i>Desulfovibrio alaskensis</i>	1
<i>Desulfovibrio aminophilus</i>	1
<i>Desulfovibrio bastinii</i>	1
<i>Desulfovibrio dechloracetivorans</i>	1
<i>Desulfovibrio fructosivorans</i>	1
<i>Desulfovibrio gracilis</i>	1
<i>Desulfovibrio hydrothermalis</i>	1
<i>Desulfovibrio indonesiensis</i>	1
<i>Desulfovibrio magneticus</i>	1
<i>Desulfovibrio mexicanus</i>	1
<i>Desulfovibrio oxycliniae</i>	1
<i>Desulfovibrio putealis</i>	1
<i>Desulfurobacterium thermolithotrophum</i>	1
<i>Desulfurococcus amyolyticus</i>	1

<i>Desulfurococcus fermentans</i>	1
<i>Desulfuromonas palmitatis</i>	1
<i>Dethiosulfovibrio acidaminovorans</i>	1
<i>Dethiosulfovibrio marinus</i>	1
<i>Devosia limi</i>	1
<i>Devosia neptuniae</i>	1
<i>Dialister invisus</i>	2
<i>Diaphorobacter nitroreducens</i>	1
<i>Dickeya chrysanthemi</i>	1
<i>Dickeya dianthicola</i>	1
<i>Dietzia natronolimnaea</i>	1
<i>Dorea formicigenerans</i>	1
<i>Dorea longicatena</i>	1
<i>Duganella violaceinigra</i>	1
<i>Dyadobacter crusticola</i>	1
<i>Dyadobacter fermentans</i>	1
<i>Dyadobacter hamtensis</i>	1
<i>Dysgonomonas capnocytophagoides</i>	2
<i>Ehrlichia ruminantium</i>	2
<i>Elizabethkingia meningoseptica</i>	2
<i>Elizabethkingia miricola</i>	2
<i>Enhygromyxa salina</i>	1
<i>Ensifer arboris</i>	1
<i>Ensifer fredii</i>	1
<i>Ensifer kostiensis</i>	1
<i>Ensifer kummerowiae</i>	1
<i>Ensifer saheli</i>	1
<i>Ensifer terangae</i>	1
<i>Enterobacter cloacae</i> subsp. <i>cloacae</i>	2
<i>Enterobacter cloacae</i> subsp. <i>dissolvens</i>	2
<i>Enterobacter kobei</i>	2
<i>Enterococcus asini</i>	2
<i>Enterococcus canis</i>	2
<i>Enterococcus italicus</i>	2
<i>Enterococcus porcinus</i>	2
<i>Enterococcus ratti</i>	2
<i>Erwinia aphidicola</i>	2
<i>Erwinia carotovora</i> , ... [2]	2
<i>Erwinia papayae</i>	2
<i>Erwinia pyrifoliae</i>	2
<i>Erwinia toletana</i>	2
<i>Erysipelothrix inopinata</i>	2
<i>Erythrobacter aquimaris</i>	1
<i>Erythrobacter citreus</i>	1
<i>Erythrobacter flavus</i>	1
<i>Exiguobacterium aestuarii</i>	1
<i>Exiguobacterium marinum</i>	1
<i>Exiguobacterium oxidotolerans</i>	1
<i>Facklamia ignava</i>	2
<i>Fastidiosipila sanguinis</i>	2
<i>Ferrimonas marina</i>	1
<i>Ferropasma acidiphilum</i>	1
<i>Fibrobacter succinogenes</i>	1
<i>Filifactor alocis</i>	1

<i>Finegoldia magna</i>	1
<i>Flavobacterium antarcticum</i>	1
<i>Flavobacterium denitrificans</i>	1
<i>Flavobacterium granuli</i>	1
<i>Flavobacterium micromati</i>	1
<i>Flavobacterium psychrolimnae</i>	2
<i>Friedmanniella lacustris</i>	1
<i>Fulvimonas soli</i>	1
<i>Fusobacterium canifelinum</i>	2
<i>Fusobacterium equinum</i>	2
<i>Garciella nitratireducens</i>	1
<i>Gelidibacter gilvus</i>	1
<i>Gelidibacter mesophilus</i>	1
<i>Gemella cuniculi</i>	2
<i>Geobacter bemidjiensis</i>	1
<i>Geobacter bremensis</i>	1
<i>Geobacter chappellei</i>	1
<i>Geobacter grbiciae</i>	1
<i>Geobacter hydrogenophilus</i>	1
<i>Geobacter pelophilus</i>	1
<i>Georgenia muralis</i>	1
<i>Geothermobacter ehrlichii</i>	1
<i>Geothrix fermentans</i>	1
<i>Geovibrio ferrireducens</i>	1
<i>Geovibrio thiophilus</i>	1
<i>Glaciecola mesophila</i>	1
<i>Glaciecola pallidula</i>	1
<i>Glaciecola polaris</i>	1
<i>Glaciecola punicea</i>	1
<i>Gluconacetobacter europaeus</i>	1
<i>Gluconacetobacter hansenii</i>	1
<i>Gluconacetobacter sacchari</i>	1
<i>Gluconacetobacter xylinus</i>	1
<i>Gluconobacter thailandicus</i>	1
<i>Glycomyces algeriensis</i>	1
<i>Glycomyces arizonensis</i>	1
<i>Glycomyces lechevalierae</i>	1
<i>Gordonia desulfuricans</i>	2
<i>Gordonia otitidis</i>	2
<i>Guggenheimella bovis</i>	2
<i>Haemophilus pittmaniae</i>	2
<i>Halanaerobium fermentans</i>	1
<i>Halanaerobium saccharolyticum</i>	1
<i>Halanaerobium saccharolyticum</i> subsp. <i>saccharolyticum</i>	1
<i>Haliangium ochraceum</i>	1
<i>Haliangium tepidum</i>	1
<i>Haloanaerobacter salinarius</i>	1
<i>Haloanaerobium congolense</i>	1
<i>Haloanaerobium kushneri</i>	1
<i>Haloanaerobium saccharolyticum</i> subsp. <i>saccharolyticum</i> , ... [2]	1
<i>Haloarcula quadrata</i>	1
<i>Halobacillus aidingensis</i>	1
<i>Halobacillus dabanensis</i>	1

Halobacillus karajensis	1
Halobacillus locisalis	1
Halobacillus salinus	1
Halobacterium noricense	1
Halobacteroides elegans	1
Halobiforma nitratireducens	1
Halocella cellulositytica	1
Halochromatium glycolicum	1
Halococcus dombrowskii	1
Haloferax alexandrinus	1
Haloferax lucentense	1
Haloferax sulfurifontis	1
Halogeometricum borinquense	1
Haloincola saccharolyticus	1
Halomicrobium mukohataei	1
Halomonas axialensis	2
Halomonas boliviensis	2
Halomonas campisalis	2
Halomonas hydrothermalis	1
Halomonas koreensis	2
Halomonas marisflavi	2
Halomonas sulfidaeris	1
Halomonas ventosae	1
Halonatronum saccharophilum	1
Halorhabdus utahensis	1
Halorhodospira neutriphila	1
Halorubrum alkaliphilum	1
Halorubrum tebenquichense	1
Halorubrum terrestre	1
Halorubrum tibetense	1
Halorubrum xinjiangense	1
Halosimplex carlsbadense	1
Haloterrigena thermotolerans	1
Haloterrigena turkmenica	1
Halothiobacillus halophilus	1
Halothiobacillus hydrothermalis	1
Halothiobacillus kellyi	1
Halothiobacillus neapolitanus	1
Helcococcus sueciensis	2
Helicobacter canadensis	2
Helicobacter typhlonius	2
Heliobacterium sulfidophilum	1
Heliobacterium undosum	1
Heliorestis baculata	1
Heliorestis daurensis	1
Herbaspirillum autotrophicum	1
Herbaspirillum chlorophenolicum	1
Herbaspirillum frisingense	1
Hippea maritima	1
Histophilus somni	2
Hongiella halophila	1
Hongiella mannitolivorans	1
Hongiella marincola	1
Hydrogenimonas thermophila	1

Hydrogenivirga caldilitoris	1
Hydrogenobacter hydrogenophilus	1
Hydrogenobacter subterraneus	1
Hydrogenobaculum acidophilum	1
Hydrogenophaga atypica	1
Hydrogenophaga defluvii	1
Hydrogenophaga intermedia	1
Hydrogenophilus hirschii	1
Hydrogenophilus thermoluteolus	1
Hydrogenothermus marinus	1
Hyphomicrobium chloromethanicum	1
Hyphomicrobium sulfonivorans	1
Hyphomonas adhaerens	1
Hyphomonas johnsonii	1
Hyphomonas rosenbergii	1
Idiomarina abyssalis	1
Idiomarina baltica	1
Idiomarina fontislapidosi	1
Ignicoccus islandicus	1
Ignicoccus pacificus	1
Ilyobacter insuetus	1
Isobaculum melis	1
Isochromatium buderi	1
Isoptericola halotolerans	1
Isoptericola hypogeus	1
Isoptericola variabilis	1
Janibacter brevis	1
Janibacter melonis	1
Janibacter terrae	1
Janthinobacterium agaricidamnorum	1
Jeotgalibacillus alimentarius	1
Kaistia adipata	1
Ketogulonicigenium robustum	1
Ketogulonicigenium vulgare	1
Kineococcus radiotolerans	1
Kineosporia mikuniensis	1
Kineosporia rhamnosa	1
Kineosporia rhizophila	1
Kineosporia succinea	1
Kitasatospora arboriphila	1
Kitasatospora cheerisanensis	1
Kitasatospora cineracea	1
Kitasatospora gansuensis	1
Lactobacillus acidifarinae	1
Lactobacillus algidus	1
Lactobacillus amylolyticus	1
Lactobacillus casei subsp. casei	1
Lactobacillus delbrueckii	1
Lactobacillus delbrueckii subsp. indicus	1
Lactobacillus fornicalis	1
Lactobacillus hammesii	1
Lactobacillus kefirnofaciens subsp. kefirnofaciens	1
Lactobacillus kefirnofaciens subsp. kefirgranum	1
Lactobacillus mucosae	1

Lentzea albida	1
Lentzea californiensis	1
Lentzea flaviverrucosa	1
Lentzea violacea	1
Lentzea waywayandensis	1
Leuconostoc durionis	1
Leuconostoc ficulneum	1
Leuconostoc fructosum	1
Leuconostoc mesenteroides	1
Listonella damsela	2
Mesorhizobium chacoense	1
Mesorhizobium plurifarum, ... [2]	1
Mesorhizobium septentrionale	1
Mesorhizobium temperatum	1
Methanobacterium aarhusense	1
Methanobacterium beijingense	1
Methanobacterium congolense	1
Methanobacterium oryzae	1
Methanobacterium subterraneum	1
Methanobacterium thermaggregans	1
Methanobacterium thermalcaliphilum	1
Methanobacterium thermautotrophicum	1
Methanococcus vulcanius	1
Methanothermobacter defluvii	1
Methanothermobacter marburgensis	1
Methanothermobacter thermautotrophicus	1
Methanothermobacter thermoflexus	1
Methanothermobacter thermophilus	1
Methanothermobacter wolfeii	1
Methanothermococcus okinawensis	1
Methanothermococcus thermolithotrophicus	1
Methylocella tundrae	1
Moraxella catarrhalis	2
Moraxella caviae	2
Moraxella cuniculi	2
Moraxella ovis	2
Mycobacterium bovis subsp. bovis	3
Mycobacterium bovis subsp. caprae	3
Mycoplasma haemocanis	2
Mycoplasma haemofelis	2
Mycoplasma haemomuris	2
Mycoplasma microti	2
Mycoplasma wenyonii	2
Neorickettsia risticii	2
Neorickettsia sennetsu	2
Nitrosomonas aestuarii	1
Nitrosomonas communis	1
Nitrosomonas eutropha	1
Nitrosomonas halophila	1
Nitrosomonas marina	1
Nitrosomonas nitrosa	1
Nitrosomonas oligotropha	1
Nocardia thailandica	2
Pasteurella multocida	2

Pedobacter africanus	1
Pedobacter caeni	1
Pedobacter cryoconitis	1
Pedobacter heparinus	1
Pedobacter himalayensis	1
Pedobacter piscium	1
Photorhabdus luminescens subsp. akhurstii	1
Photorhabdus luminescens subsp. kayaii	1
Photorhabdus luminescens subsp. laumondii	1
Photorhabdus luminescens subsp. luminescens	1
Photorhabdus luminescens subsp. thracensis	1
Porphyromonas uenonis	2
Rhizobium indigoferae	1
Rhizobium radiobacter	1
Rhizobium rhizogenes	1
Rickettsia slovacica	3
Serratia marcescens subsp. marcescens	2
Serratia marcescens subsp. sakuensis	2
Staphylococcus	2
Staphylococcus aureus	2
Streptococcus equi	2
Taylorella asinigenitalis	2
Tenuibacillus multivorans	1
Tepidibacter formicigenes	1
Tepidibacter thalassicus	1
Thalassobacter stenotrophicus	1
Thalassolituus oleivorans	1
Thauera aminoaromatica	1
Thauera chlorobenzoica	1
Thauera linalcolentis	1
Thauera linaloolentis	1
Thauera mechernichensis	1
Thauera phenylacetica	1
Thermanaeromonas toyohensis	1
Thermoanaerobacter italicus	1
Thermoanaerobacter mathranii	1
Thermoanaerobacter siderophilus	1
Thermoanaerobacter subterraneus	1
Thermoanaerobacter sulfurophilus	1
Thermoanaerobacter tengcongensis	1
Thermoanaerobacter yonseiensis	1
Thermoanaerobacterium polysaccharolyticum	1
Thermococcus acidaminovorans	1
Thermococcus aegaeus	1
Thermococcus atlanticus	1
Thermococcus barophilus	1
Thermococcus barossii	1
Thermococcus gammatolerans	1
Thermococcus gorgonarius	1
Thermococcus guaymasensis	1
Thermococcus kodakarensis	1
Thermococcus litoralis	1
Thermococcus pacificus	1
Thermococcus sibiricus	1

Thermococcus siculi		1
Thermococcus waiotapuensis		1
Thermococcus zilligii		1
Thermoflavimicrobium dichotomicum		1
Tissierella creatinophila		1
Listonella anguillarum, ... [2]		2
Virgibacillus carmonensis		1
Virgibacillus dokdonensis		1
Virgisporangium aurantiacum		1
E. coli KRX		1
Staphylococcus hyicus subsp. chromogenes, ... [2]		1