

Rhizobium quercicola sp. nov.

Submitted by Van Lill, Melandre

Species *Rhizobium quercicola*

Etymology

[quer.ci'co.la] L. fem. n. *quercus*, oak; L. fem. suff. *-cola*, dweller; inhabitant; N.L. fem. n. *quercicola*, a dweller of oaks

Nomenclatural type

[NCBI Assembly: GCF_021168455.1](#) ^{Ts}

Reference Strain

[Strain scc0039553](#): DKSPLA3 = CFCC 16707 = [KCTC 82843](#)

Description

Cells are Gram-negative, non-motile, catalase-positive, oxidase-positive, non-nitrogen-fixing, rod-shaped and aerobic bacteria. After 3 days of incubation at 28 °C on YMA medium, colonies are milk-white, circular, middle convex, and smooth. The growth temperature ranges from 4 to 37 °C (optimum 28 °C), pH 4.0–9.0 (optimum pH 7.0) and tolerates 4% (w/v) NaCl concentration (optimum under 2% NaCl). The production of hydrogen sulphide (H₂S), and reduction of nitrate and nitrite are negative. Lack of nitrogen-fixation on N-free plates, absence of *nif* genes in the draft genome sequence, and by annotation results. In the API 20E kit, positive for 2-nitrophenyl- β -D-galactopyranoside, sodium pyruvate and L-arabinose. In the API 20NE kit, positive for esculin ferric citrate, 4-nitrophenyl- β -D-galactopyranoside, D-mannose, D-mannitol, D-maltose and malic acid. In the API ZYM kit, positive for alkaline phosphatase, esterase (C4), leucine arylamidase, cystine arylamidase, valine arylamidase, trypsin, α -chymotrypsin, acid phosphatase, α -glucosidase, β -galactosidase, *N*-acetyl- β -glucosaminidase and β -glucosidase, and weakly positive for esterase lipase (C8), lipase (C14), naphthol-AS-BI-phosphohydrolase, α -galactosidase and α -mannosidase. The following carbon sources are utilized: dextrin, D-maltose, D-trehalose, D-cellobiose, sucrose, α -D-lactose, α -D-glucose, D-mannose, D-fructose, D-galactose, D-sorbitol, D-mannitol, D-arabitol, myo-inositol, L-glutamic acid, pectin, L-galactonic acid lactone, α -keto-glutaric acid, L-malic acid, tween 40, acetoacetic acid, acetic acid and malic acid as sole carbon sources. The major fatty acids are C16:0, C18:1 ω 7c and/or C18:1 ω 6c and C18:1 ω 7c 11-methyl. The only respiratory quinone is Q-10. The polar lipids are diphosphatidyl glycerol (DPG), phosphatidyl glycerol (PG), phosphatidylethanolamine (PE), phosphatidylmonomethylethanolamine (PME), phosphatidylcholine (PC), two unidentified phospholipid (PL) and nine unidentified lipids (L). The G + C content of the genomic DNA is 64.47 mol %.

Classification

Bacteria » *Pseudomonadota* » *Alphaproteobacteria* » *Hyphomicrobiales* » *Rhizobiaceae* » *Rhizobium* » *Rhizobium quercicola*

References

Effective publication: Wang et al., 2022 [1]

Registry URL

<https://seqco.de/i:49637>

References

1. Wang et al. (2022). *Rhizobium quercicola* sp. nov., isolated from the leaf of *Quercus variabilis* in China. *Archives of Microbiology*. DOI:10.1007/s00203-022-03188-y

Register List Certificate of Validation

On behalf of the *Committee on the Systematics of Prokaryotes Described from Sequence Data* (SeqCode Committee), we hereby certify that the Register List seqco.de/ri_jsd202 submitted by **Van Lill, Melandre** and including 1 new name has been successfully validated.

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