

Mesorhizobium xinjiangense sp. nov.

Submitted by Van Lill, Melandre

Species *Mesorhizobium xinjiangense*

Etymology

[xin.jiang.en'se] N.L. neut. adj. *xinjiangense*, referring to Xinjiang province in China, the area where the type strain was isolated

Nomenclatural type

[NCBI Assembly: GCF_009749525.1](#)^{Ts}

Reference Strain

[Strain scl0038897](#): Im94 = [KCTC 72863](#) = CCTCC AB2019377

Description

Cells are Gram-stain-negative, aerobic, non-flagellated, non-gliding, rod-shaped, 0.3–0.5 µm in width, 0.4–1.0 µm in length. Colonies on LB are circular, convex, smooth, opaque, beige-pigmented and approximately 1.0–1.5 mm in diameter after 3 days at 37 °C. Growth occurs at 20–45 °C (optimum 37 °C), pH 6.0–9.5 (optimum pH 7.0–7.5), and in the presence of 0–6% (w/v) NaCl (optimum 0–1%). Cells are catalase-positive and oxidase-positive. They are negative for H₂S production, citrate utilization, indole production, gelatinase production and starch hydrolysing but positive for arabinose, tryptophan deaminase and lysine decarboxylase according to API 20E tests. Acid is produced from d-arabinose, l-arabinose, d-ribose, d-xylose, d-adonitol, d-glucose, d-fructose, l-rhamnose, mannose, ESC, sorbitol, d-lyxose, d-fucose, l-fucose, d-arabitol and 5-keto-potassium gluconate (API 50 CHB). In API ZYM tests, positive for alkaline phosphatase, esterase (C4), leucine arylamidase, valine arylamidase, trypsin, acid phosphatase and naphthol-AS-BI-phosphohydrolase activities. In carbon source oxidation tests, cells are positive for d-sorbitol, d-mannitol, d-arabitol, glycerol, d-fructose-6-PO₄, N-acetyl-d-glucosamine, l-alanine, l-arginine, l-glutamic acid, l-histidine, α-d-glucose, d-mannose, d-fructose, l-fucose, d-fucose, l-rhamnose, d-serine, d-glucuronic acid, glucuronamide, l-lactic acid, d-malic acid and l-malic acid. Q-10 is the sole respiratory quinone. The major polar lipids are phosphatidylethanolamine (PE), phosphatidylglycerol (PG), unidentified phospholipid (PL), phosphatidylcholine (PC), diphosphatidylglycerol (DPG), unidentified aminolipid (AL), unknown glycolipid (GL), unidentified aminophospholipid (APL2) and unidentified polar lipid (L1 and L2). The major cellular fatty acids (> 10.0%) are C19:0 cyclo ω8c and Summed Feature 8 (C18:1 ω6c and/or C18:1 ω7c). The genomic DNA G+C content of the type strain is 63.6 mol%.

Classification

Bacteria » *Pseudomonadota* » *Alphaproteobacteria* » *Hyphomicrobiales* » *Phyllobacteriaceae* » *Mesorhizobium* » *Mesorhizobium xinjiangense*

References

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

Registry URL

<https://seqco.de/i:49632>

References

1. Meng et al. (2022). *Mesorhizobium xinjiangense* sp. nov., isolated from rhizosphere soil of *Alhagi sparsifolia*. *Archives of Microbiology*. [DOI:10.1007/s00203-021-02686-9](https://doi.org/10.1007/s00203-021-02686-9)

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/r:g4_brxk9 submitted by **Van Lill, Melandre** and including 1 new name has been successfully validated.

Date of Priority: 2025-03-20 05:10 UTC

DOI: 10.57973/seqcode.r:g4_brxk9

