Neorhizobium lilium

Submitted by Van Lill, Melandre

Species *Neorhizobium lilii*

Etymology

[li'li.i] **L. gen. n.** *lilii*, of a lily, referring to the plant genus Lilium

Nomenclatural type

NCBI Assembly: GCF_004053875.1 [Ts]

Reference Strain

Strain sc|0039537: 24NR = ACCC 61588 = JCM 33731

Description

Cells are gram negative, aerobic, non-spore-forming, non-motile, rod-shaped, 0.3–0.5 μm in width, and 0.7–1.7 μm in length. Colonies grown on YMA for 3 days are circular with regular margins, convex, milky, and 2–3 mm in diameter after incubation for 48 h on YMA at 30 °C. Growth occurs in the presence of 0–2% (w/v) NaCl (optimum, 0% NaCl), pH 6.0–9.0 (optimum, 7.0–8.0), and 15–42 °C (optimum, 30 °C). Catalase and oxidase positive. Starch and casein are not hydrolyzed. Nitrate cannot be reduced. Urease and *β*-galactosidase are negative. Can assimilate glucose, mannose, arabinose, mannitol, and malic acid. Voges-Proskauer test is positive. Negative for fermentation of mannose, sorbitol, rhamnose, and melibiose. In the API ZYM system, positive for alkaline phosphatase, leucine arlyamidase, acid phosphatase, naphthol-AS-BI-phosphohydrolase, *β*-glucuronidase. The following carbon sources are utilized: d-cellobiose, gentiobiose, d-mannose, d-fructose, d-galactose, *myo*-inositol, glycyl-l-proline, l-alanine, l-aspartic acid, l-serine, d-galacturonic acid, d-glucuronic acid, l-malic acid, bromo-succinic acid, *β*-hydroxy- d, l-butyric acid, acetoacetic acid, acetic acid. l-arginine, 3-methyl glucose, and d-turanose are weakly utilized. The major cellular fatty acids in strain 24NRT are summed feature 8 and C19:0 cyclo *ω*8*c*. The genome size of strain 24NRT is 5.22 Mb. The DNA G+C content is 60.3 mol %. The type strain is 24NRT (= ACCC 61588T = JCM 33731T), isolated from the bulbs of *Lilium pumilum* in the Hebei Province, PR China.

Classification

Bacteria » *Pseudomonadota* » *Alphaproteobacteria* » *Hyphomicrobiales* » *Rhizobiaceae* » *Neorhizobium* » *Neorhizobium lilii*

References

Effective publication: Liu et al., 2020 [1]

Registry URL

https://seqco.de/i:49629

References

1. Liu et al. (2020). Neorhizobium lilium sp. nov., an endophytic bacterium isolated from Lilium pumilum bulbs in Hebei province. *Archives of Microbiology*. DOI:10.1007/s00203-019-01774-1

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:ttb3bgyb** submitted by **Van Lill, Melandre** and including 1 new name has been successfully validated.

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