

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 arylamidase, 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 ω8c. 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](https://doi.org/10.1007/s00203-019-01774-1)