

# Rhizobium deserti sp. nov.

Submitted by Van Lill, Melandre

## Species *Rhizobium deserti*

### Etymology

[de.ser'ti] L. gen. n. *deserti*, of a desert

### Nomenclatural type

[NCBI Assembly: GCF\\_004358025.1](#) <sup>Ts</sup>

### Reference Strain

[Strain sc|0038881](#): SPY-1

### Description

Cell is gram-negative, aerobic, non-motile, and rod-shaped (0.7–2.0-μm long and 0.3–0.7-μm wide). Colonies are circular with regular margins, convex, milky, and 2–3 mm in diameter after incubation for 48 h on YMA at 30 °C. Grows in the presence of 0–2% (w/v) NaCl (optimum, 0% NaCl) at pH 6.0–9.0 (optimum, 7.0–8.0) and at 15–37 °C (optimum, 30 °C). Positive for nitrate reduction, and catalase and oxidase. Eesculin is hydrolyzed and gelatin is weakly hydrolyzed. Starch and casein are not hydrolyzed. Can assimilate mannose, *N*-acetyl glucosamine, maltose, and citric acid. Negative for H<sub>2</sub>S, urease, and indole production and Voges–Proskauer reaction. In the API ZYM system, positive for alkaline phosphatase, esterase (C4), esterase lipase (C8), leucine arylamidase, acid phosphatase, naphthol-AS-BI-phosphohydrolase, and β-glucosidase. The following carbon sources are utilized: dextrin, *N*-acetyl-d-glucosamine, *N*-Acetyl-β-d-mannosamine, α-d-glucose, d-mannose, d-fructose, d-galactose, d-fucose, l-fucose, l-rhamnose, d-mannitol, d-arabitol, *myo*-inositol, glycerol, glycyl-l-proline, l-alanine, l-aspartic acid, l-glutamic acid, d-galacturonic acid, d-gluconic acid, d-glucuronic acid, glucuronamide, α-keto-glutaric acid, d-malic acid, l-malic acid, bromo-succinic acid, Tween 40, β-hydroxy-d, l-butyric acid, acetoacetic acid, and acetic acid. The major cellular fatty acids are summed feature 8 (C18:1ω7c and/or C18:1ω6c) and C16:0. The draft genome is 4.75 Mb in size and the common genes required for legume nodulation, *nod*ACD and *nif*H, are absent from the genome. The G + C content is 60.0%.

### Classification

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

### References

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

### Registry URL

<https://seqco.de/i:39270>

## References

1. Liu et al. (2020). *Rhizobium deserti* sp. Nov Isolated from Biological Soil Crusts Collected at Mu Us Sandy Land, China. *Current Microbiology*. [DOI:10.1007/s00284-019-01831-4](https://doi.org/10.1007/s00284-019-01831-4)

## 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:\_y\_dvys3** submitted by **Van Lill, Melandre** and including 1 new name has been successfully validated.

**Date of Priority:** 2025-03-20 05:39 UTC

**DOI:** 10.57973/seqcode.r:\_y\_dvys3

