

Species *Mesorhizobium vachelliae*

Etymology

[va.chel.li'ae] N.L. gen. n. *vachelliae*, of Vachellia, referring to the host plant from which this organism was recovered.

Nomenclatural type

[NCBI Assembly: GCA_033977325.1](#) ^{TS}

Reference Strain

VK25A

Description

Cells are Gram-negative, motile rods. On YM agar, following 5 days of incubation at 28 °C, the colonies are circular, cream, translucent with entire margins and convex elevations with viscid consistency. The strain was able to grow in the pH range of 5 to 10 and tolerate a NaCl concentration of 0.3% to 2.5%. The strain was able to grow at 4 °C to 37 °C. The strain tested positive for the activity of nitrate reduction to nitrite, urease and esculin hydrolysis. The strain could assimilate 4-nitrophenyl-β, D-galactopyranoside, D-glucose, L-arabinose, D-mannose, D-mannitol, N-acetyl-glucosamine, D-maltose and malic acid. The strain could utilize dextrin, D-maltose, D-trehalose, D-cellubiose, gentiobiose, sucrose, D-turanose, D-raffinose, D-melibiose, β -methyl-D glucoside, D-salicin, N-acetyl-D glucosamine, N-acetyl- β -D mannosamine, N-acetyl-D galactosamine, N-acetyl neuraminic acid, α-D-glucose, D-mannose, D-fructose, D-galactose, 3-methyl glucose, D-fucose, L- fucose, L-rhamnose, 1% sodium lactate, D-serine, D-sorbitol, D-mannitol, D-arabitol, myo-inositol, glycerol, D-fructose6-PO₄, Glycyl-L-proline, L-arginine, L-aspartic acid, L-glutamic acid, L-histidine, pectin, glucuronamide, the reduction of tetrazolium blue, methyl pyruvate, D-lactic acid methyl ester, L-lactic acid, D- malic acid, L-malic acid, bromo-succinic acid, nalidixic acid, potassium tellurite, γ -Amino-butyric acid, α-hydroxy-butyric acid, β-hydroxy-D-L-butyric acid, acetoacetic acid, propionic acid, acetic acid and formic acid as sole sources of carbon. The strain was able to form effective symbiosis with *V. karroo*.

Classification

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

References

Effective publication: van Lill et al., 2024 [1]

Registry URL

<https://seqco.de/i:32828>

References

1. van Lill et al. (2024). SeqCode facilitates naming of South African rhizobia left in limbo. *Systematic and Applied Microbiology*. DOI:10.1016/j.syapm.2024.126504