

Species *Mesorhizobium dulcispinae*

Etymology

[dul.ci.spi.na.e] L. fem. adj. *dulcis*, sweet; L. fem. n. *spina*, thorn; N.L. gen. n. *dulcispinae*, of a sweet thorn, referring to the common name of *Vacellia karroo*, the host plant from which this organism was recovered.

Nomenclatural type

[NCBI Assembly: GCA_033977345.1](#) ^{TS}

Reference Strain

VK23D

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 6 to 9 and tolerate a NaCl concentration of 0.3 % to 2.5 %. The strain can grow at 10 °C to 35 °C. The strain could reduce nitrates to nitrogen and strain tested positive for the activity of urease and esculin hydrolysis. The strain could assimilate 4-nitrophenyl- β -D-galactopyranoside, D-glucose, L-arabinose, D-mannose, D-mannitol, D-maltose and potassium gluconate. The strain could utilize dextrin, D-maltose, D-trehalose, D-cellobiose, gentiobiose, sucrose, D-turanose, stachyose, D-raffinose, α -D-lactose, D-melibiose, β -methyl-D glucoside, D-salicin, N-acetyl-D-glucosamine, N-acetyl- β -D-mannosamine, N-acetyl-D-galactosamine, α -D-glucose, D-mannose, D-fructose, D-galactose, 3-methyl glucose, D-fucose, L-fucose, L-rhamnose, D-serine, D-sorbitol, D-mannitol, D-arabitol, myo-inositol, glycerol, D-glucose6-PO₄, D-fructose6-PO₄, D-aspartic acid, gelatin, Glycyl-L-proline, L-alanine, L-arginine, L-aspartic acid, L-glutamic acid, L-histidine, L-pyroglutamic acid, pectin, D-galacturonic acid, L-galactonic acid lactone, D-gluconic acid, D-glucuronic acid, glucuronamide, mucic acid, quinic acid, D-saccharic acid, P-hydroxy-phenylacetic acid, L-lactic acid, D-lactic acid methyl ester, citric acid, α -keto-glutaric acid, L-lactic acid, D-malic acid, L-malic acid, bromo-succinic acid, nalidixic acid, Tween 40, γ -Amino-butyric acid, β -hydroxy-D-L-butyric acid, acetoacetic acid, propionic acid and acetic 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 dulcispinae*

References

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

Registry URL

<https://seqco.de/i:32830>

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