

Species *Mesorhizobium montanum*

Etymology

[mon.ta'num] L. **neut. adj.** *montanum*, pertaining to mountains, in particular the Kamiesburg mountains, surrounding Kamieskroon, the region where soil was sampled from.

Nomenclatural type

[NCBI Assembly: GCA_033977145.1](#) ^{Ts}

Reference Strain

MSK 1335

Description

Cells are Gram-negative, motile rods. On YM agar, following 5 days of incubation at 28 °C, the colonies are circular, cream in colour, translucent with entire margins and convex elevations with mucoid consistency due to the excessive production of exopolysaccharides. The strain was not able to tolerate a pH of 4, but could grow at a pH of 10 and a NaCl concentration of 0.5 % to 1 %. The strain was able to grow at 15 °C to 37 °C. The strain tested positive for the activity of nitrate reduction to nitrite, arginine dehydrogenase, urease, β -galactosidase, β -glucosidase, oxidase and catalase but not tryptophan deaminase. The strain could utilize potassium gluconate, trisodium citrate, dextrin, D-maltose, D-trehalose, D-cellubiose, D-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, N-acetyl neuraminic acid, α -D-glucose, D-mannose, D-fructose, D-galactose, 3-methyl glucose, D-fucose, L- fucose, L-rhamnose, Inosine, D-sorbitol, D-mannitol, D-arabitol, 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-pyrogutamic acid, pectin, D-galacturonic acid, L-galactonic acid lactone, D-gluconic acid, D-glucuronic acid, glucuronamide, mucic acid, quinic acid, D-saccharic acid, P-hydroxyphenyl acetic acid, methyl pyruvate, D-lactic acid methyl ester, L-lactic acid, citric acid, α -keto-glutaric acid, D-malic acid, L-malic acid, bromo-succinic acid, tween 40, γ -Amino-butyric acid, α -hydroxy- butyric acid, β -Hydroxy-D-L-Butyric acid, acetoacetic acid, propionic acid, acetic acid, formic acid as sole source of carbon. The strain was able to form effective symbiosis with *V. karroo*.

Classification

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

References

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

Registry URL

<https://seqco.de/i:32826>

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