

## Species *Mesorhizobium australafricanum*

### Etymology

[aus.tral.a.fri.ca'num] L. neut. adj. *australis*, southern; L. neut. adj. *africanum*, African; N.L. neut. adj. *australafricanum*, pertaining to Southern Africa

### Nomenclatural type

[NCBI Assembly: GCA\\_033977265.1](#)<sup>Ts</sup>

### Reference Strain

VK9D

### 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 mucoid 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 can grow at 10 °C to 35 °C. The strain tested positive for the activity of D-glucose fermentation, urease and esculin hydrolysis. The strain could assimilate 4-nitrophenyl- $\beta$ -D-galactopyranoside, D-glucose, L-arabinose, D-mannose, D-mannitol, N-acetyl-glucosamine, D-maltose, adipic acid and malic acid. The strain could utilize dextrin, D-maltose, D-trehalose, D-cellubiose, gentiobiose, sucrose, D-turanose, stachyose, D-raffinose,  $\alpha$ -D-lactose, D-melibiose,  $\beta$ -methyl-D glucoside, D-salicin, N-acetyl-D glucosamine, N-acetyl- $\beta$ -D mannosamine, N-acetyl-D galactosamine, N-acetyl neuraminic acid,  $\alpha$ -D-glucose, D-mannose, D-fructose, D-galactose, 3-methyl glucose, D-fucose, L-fucose, L-rhamnose, inosine, D-serine, D-sorbitol, D-mannitol, D-arabitol, myo-inositol, glycerol, D-glucose6-PO<sub>4</sub>, D-fructose6-PO<sub>4</sub>, 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, the reduction of tetrazolium blue, P-Hydroxyphenyl acetic acid, methyl pyruvate, D-lactic acid methyl ester, citric acid,  $\alpha$ -keto-glutaric acid, L-lactic acid, D-malic acid, L-malic acid, bromo-succinic acid, nalidixic acid, Tween 40,  $\gamma$ -Amino-butyric acid,  $\beta$ -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 australafricanum*

### References

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

### Registry URL

<https://seqco.de/i:32829>

## 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