Species *Bradyrhizobium mpumalangense*

Etymology

[mpu.ma.lan.gen'se] **N.L. neut. adj.** *mpumalangense*, pertaining to Mpumalanga, the region where the reference strain was isolated

Nomenclatural type

NCBI Assembly: GCA_029990105.1 [Ts]

Reference Strain

Strain sc|0038743: Arg237L

Description

Cells are gram-negative motile rods ranging from 0.577 to 0.603 µm (in length) to 0.166 to 0.177 µm (in width). Colonies were medium in size, ranging between 1mm and 2mm at 7 days, are circular, opaque, pulvinate, smooth, opaque, and slimy. Colonies also produced an alkaline reaction in YMA with bromothymol blue as an indicator. The reference strain grows at a pH range of 5 to 10, temperature range of 25 to 30 °C, with optimum growth at 25 and 28 °C and tolerates up to 0.5% (w/v) NaCl. It assimilates Urease, esculin ferric citrate, β-galactosidase, L-arabinose, D-mannose, D-mannitol, D-maltose, adipic acid, Malic acid, Trisodium citrate, and N-acetyl-glucosamine, but does not assimilate indole, D-glucose, L-arginine, gelatin, potassium gluconate, Capric acid, and Phenylacetic acid. This strain can reduce nitrates to nitrite and nitrogen. In terms of the biology tests, Arg237L was reported negative for 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, N-Acetyl Neuraminic Acid, D-Fructose, 3-Methyl Glucose, Inosine, D-Sorbitol, myo-Inositol, Glycerol, D-Glucose6-PO4, D-Fructose6-PO4, L-Histidine, D-Aspartic Acid, D-Serine, Gelatin, Glycyl-L-Proline, L-Alanine, L-Arginine, L-Aspartic Acid, L-Glutamic Acid, L-Serine, Pectin, D-Gluconic Acid, Quinic Acid, Lithium Chloride, Guanidine HCl, D-Lactic Acid Methyl Ester, Citric Acid, D-Galacturonic Acid, Tween 40, γ-Amino-Butryric Acid, α-Hydroxy-Butyric Acid, α-Keto-Butyric Acid, Propionic Acid, and Sodium Bromate, weakly positive for D-Galactose, α-D-Glucose, D-Mannose, L-Fucose, L-Rhamnose, D-Mannitol, D-Arabitol, Fusidic Acid, Minocycline, Troleandomycin, L-Pyroglutamic Acid, Niaproof 4, Bromo-Succinic Acid, L-Galactonic Acid Lactone, D-Glucuronic Acid, Glucuronamide, Mucic Acid, Tetrazolium Blue, p-Hydroxy-Phenylacetic Acid, Vancomycin, , α-Keto-Glutaric Acid, Acetoacetic Acid, L-Malic Acid, Methyl Pyruvate, D-Malic Acid, Potassium Tellurite, Acetic Acid, and Sodium Butyrate, and Positive for D-Fucose, 1% Sodium Lactate, Rifamycin SV, Tetrazolium Violet, Lincomycin, D-Saccharic Acid, L-Lactic Acid, Nalidixic Acid, β-Hydroxy-D, L-Butyric Acid, Aztreonam, and Formic Acid.

Classification

Bacteria » *Pseudomonadota* » *Alphaproteobacteria* » *Hyphomicrobiales* » *Nitrobacteraceae* » *Bradyrhizobium* » *Bradyrhizobium mpumalangense*

References

Effective publication: Maake et al., 2026 [1]

Registry URL

https://seqco.de/i:46769

References

1. Maake et al. (2026). Argyrolobium legumes from an African centre of endemism associate with novel Bradyrhizobium species harbouring unique sets of symbiosis genes. *Molecular Phylogenetics and Evolution*. DOI:10.1016/j.ympev.2025.108471