

Mesorhizobium salmacidum sp. nov.

Submitted by SeqCode user emuema

Species *Mesorhizobium salmacidum*

Etymology

[sal.ma.ci'dum] **L. neut. adj.** *salmacidum*, salty or brackish, referring to the brackish water of the region of isolation, Brakputs.

Nomenclatural type

[NCBI Assembly: GCA_037179605.1](#) ^{Ts}

Description

They are gram negative, rod-shaped, and motile bacteria. The colony morphology is white to creamy colour, often with a circular or irregular form that is elevated. Able to tolerate a pH range between 6 and 9. Grows well at < 0.5% NaCl concentration but can also have reduced growth at both 1% and 1.5% NaCl concentration. Can grow at temperature ranges between 15° to 35° with an optimum growth at 28 °C. The strain tested negative for the activity of nitrate reduction to nitrite, arginine dehydrogenase, β -glucosidase, tryptophan deaminase but positive for urease and β -galactosidase. Utilizes L-arabinose, Potassium gluconate, trisodium citrate, D-maltose, D-trehalose, D-cellubiose, D-gentiobiose, sucrose, D-turanose, 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, D-fucose, L-fucose, L-rhamnose, 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-glutamic acid, L-histidine, L-pyroglutamic acid, pectin, D-galacturonic acid, L-galactonic acid, lactone, D-gluconic acid, D-glucuronic acid, glucuronamide, 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, β -Hydroxy-D, L-Butyric acid, acetoacetic acid, acetic acid, formic acid as sole source of carbon, but not L-arabinose, capric acid, adipic acid, stachyose, D-raffinose, N-acetyl neuraminic acid, inosine, D-serine, L-serine, propionic acid, α -Keto-butyric acid, P-Hydroxyphenyl acetic acid among others. It is resistant to ampicillin, gentamicin, kanamycin, chloramphenicol, tetracycline spectinomycin, neomycin, penicillin and streptomycin, but sensitive to erythromycin. Resistant to Ni, Zn, Pb, Co, Mn, and Cu.

Classification

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

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