

Agrobacterium albertimagni

Submitted by Van Lill, Melandre

Species *Agrobacterium albertimagni*

Etymology

[a.l.ber.ti.mag'ni] N.L. gen. masc. n. *albertimagni*, an arbitrarily formed genitive noun referring to the Dominican scholar Albertus Magnus, who was the first person to describe arsenic

Nomenclatural type

[NCBI Assembly: GCA_000300855.1](#) ^{Ts}

Reference Strain

[Strain scl0039551](#): AOL15 = [ATCC BAA-24](#)

Description

Gram-negative rod, 1.5 µm long by 0.5 µm wide. When the microorganism is grown in mannitol medium, one polar flagellum is observed by transmission electron microscopy and the species is motile although it is immotile in citrate medium. Strict aerobe; positive for esculin hydrolysis, β-galactosidase activity, and oxidase activity but negative for indole formation, glucose fermentation, arginine dihydrolase activity, and gelatinase activity. From the assimilation tests, able to utilize D-glucose, L-arabinose, D-mannose, D-mannitol, N-acetyl-D-glucosamine, maltose, L-malic acid, dextrin, D-arabitol, D-fructose, L-fucose, D-galactose, gentiobiose, α-D-glucose, m-inositol, α-D-lactose, lactulose, D-melibiose, β-methyl-D-glucoside, D-psicose, D-raffinose, L-rhamnose, D-sorbitol, sucrose, trehalose, turanose, methyl pyruvate, mono-methyl succinate, D,L-lactic acid, L-aspartic acid, L-glutamic acid, L-ornithine, L-proline, L-pyroglutamic acid, urocanic acid, inosine, uridine, glycerol, glucose-1-phosphate, and glucose-6-phosphate. Optimal growth occurs at 30°C on mannitol, at neutral pH (7 or 8) and at low % NaCl. The strain can oxidize arsenite but does not appear to grow chemolithoautotrophically. Phylogenetically the species is 97.0% identical to *Blastobacter aggregatus* and 97.7% identical to *Agrobacterium tumefaciens*. Based on DNA-DNA hybridizations, AOL15 is 30 to 31% identical to *Blastobacter aggregatus* and 10 to 15% identical to *Agrobacterium tumefaciens*, which confirms that it is a new species. Bacterium isolated from the surface of the aquatic macrophyte *Potamogeton pectinatus* in Hot Creek, California. The strain type is AOL15—deposited in the American Type Culture Collection (ATCC BAA-24).

Classification

Bacteria » *Pseudomonadota* » *Alphaproteobacteria* » *Hyphomicrobiales* » *Rhizobiaceae* » *Agrobacterium* » *Agrobacterium albertimagni*

References

Effective publication: Salmassi et al., 2002 [1]

Registry URL

<https://seqco.de/i:35090>

References

1. Salmassi et al. (2002). Oxidation of Arsenite by *Agrobacterium albertimagni*, AOL15, sp. nov., Isolated from Hot Creek, California. *Geomicrobiology Journal*. [DOI:10.1080/014904502317246165](https://doi.org/10.1080/014904502317246165)

Register List Certificate of Validation

On behalf of the *Committee on the Systematics of Prokaryotes Described from Sequence Data* (SeqCode Committee), we hereby certify that the Register List seqco.de/r:wffua1y1 submitted by **Van Lill, Melandre** and including 1 new name has been successfully validated.

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