

Species *Electrothrix laxa*

Etymology

[la'xa] L. fem. adj. *laxa*, large, referring to its relatively large cell diameter compared to other cable bacteria species

Nomenclatural type

[NCBI Assembly: GCA_942492895.1](#)^{TS}

Reference Strain

MAR-scMAG (TS)

Description

Filamentous bacteria of centimeter length that inhabit the surface of marine and coastal sediment and conduct electrons from sulfide-oxidizing cells to oxygen- or nitrate-reducing cells. Gliding motility. Gram-negative, with distinct ridges running longitudinally along the filament. Cell diameters 1-6 µm. Can assimilate acetate and propionate; CO₂ fixation via the Wood-Ljungdahl pathway. Contains c-type cytochromes and type IV pili (PilA). Polyphosphate and polyglucose storage. Distinguishable by morphology and genome.

Classification

Bacteria » *Desulfobacterota* » *Desulfobulbia* » *Desulfobales* » *Desulfobulbaceae* » *Electrothrix* » *Electrothrix laxa*

References

Effective publication: Sereika et al., 2023 [1]

Registry URL

<https://seqco.de/i:23723>

References

1. Sereika et al. (2023). Closed genomes uncover a saltwater species of Candidatus Electronema and shed new light on the boundary between marine and freshwater cable bacteria. *The ISME Journal*. DOI:10.1038/s41396-023-01372-6