

Species *Electrothrix gigas*

Etymology

[gi'gas] N.L. masc. n. *gigas*, a giant (nominative in apposition), referring to its very large cell diameter

Nomenclatural type

[NCBI Assembly: GCA_022766165.1](#)^{TS}

Reference Strain

[Strain scl0038715](#): AU1_5 (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-reducing cells. Cell diameters >2.5 µm (commonly 2.5-8 µm). Gliding motility. Gram-negative, with distinct ridges running longitudinally along the filament. 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 size, 16S rRNA gene sequence and genome.

Classification

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

References

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

Registry URL

<https://seqco.de/i:32701>

References

1. Geelhoed et al. (2023). Indications for a genetic basis for big bacteria and description of the giant cable bacterium *Candidatus Electrothrix gigas* sp. nov. *Microbiology Spectrum*. [DOI:10.1128/spectrum.00538-23](https://doi.org/10.1128/spectrum.00538-23)