

Species *Electrothrix aestuarii*

Etymology

[ae.stu.a'ri.i] L. *gen. n. aestuarii*, of a tidal flat/estuary, referring to the habitat it was collected from

Nomenclatural type

[NCBI Assembly: GCA_032595685.1](#)^{TS}

Reference Strain

Rat1

Description

Filamentous bacteria of centimeter length that inhabit the surface of brackish/intertidal sediment and conduct electrons from sulfide-oxidizing cells to oxygen-reducing cells. Gliding motility. Gram-negative, with 15 distinct ridges running longitudinally along the filament. Width of individual cells is 1.2 µm. Can assimilate acetate and propionate; CO₂ fixation via the Wood-Ljungdahl pathway. Contains c-type cytochromes, type IV pili (PilA) and Na⁺ antiporters. Polyphosphate and polyglucose storage. Distinguishable by morphology and genome.

Classification

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

References

Effective publication: Plum-Jensen et al., 2024 [1]

Registry URL

<https://seqco.de/i:33363>

References

1. Plum-Jensen et al. (2024). First single-strain enrichments of *Electrothrix* cable bacteria, description of *E. aestuarii* sp. nov. and *E. rattekaaiensis* sp. nov., and proposal of a cable bacteria taxonomy following the rules of the SeqCode. *Systematic and Applied Microbiology*. [DOI:10.1016/j.syapm.2024.126487](https://doi.org/10.1016/j.syapm.2024.126487)