

Species *Electrothrix arhusiensis*

Etymology

[ar.hu.si.en'sis] N.L. fem. adj. *arhusiensis*, pertaining to Aarhus (in its medieval Latin form), a city in Denmark on the Jutland peninsula, referring to the place of the first discovery of cable bacteria

Nomenclatural type

[NCBI Assembly: GCA_942491045.1](#)^{TS}

Reference Strain

MAR-mqMAG

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. 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 arhusiensis*

References

Effective publication: Sereika et al., 2023 [1]
Corrigendum: Plum-Jensen et al., 2024 [2] (from “*Electrothrix aarhusiensis*”)
Assigned taxonomically: Trojan et al., 2016 [3]

Registry URL

<https://seqco.de/i:32137>

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
2. Plum-Jensen et al. (2024). First single-strain enrichments of *Electrothrix* cable bacteria, description of *E. aestuarii* sp. nov. and *E. rattekaaensis* 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
3. Trojan et al. (2016). A taxonomic framework for cable bacteria and proposal of the candidate genera *Electrothrix* and *Electronema*. *Systematic and Applied Microbiology*. DOI:10.1016/j.syapm.2016.05.006