

Species *Electronema halotolerans*

Etymology

[ha.lo.to'le.rans] Gr. masc. n. *hals*, salt, brine; L. pres. part. *tolerans*, tolerating; N.L. part. adj. *halotolerans*, salt tolerant. Due to its presence in, and genomic adaptations to, brackish/saltwater.

Nomenclatural type

[NCBI Assembly: GCA_942493095.1](#)^{TS}

Reference Strain

BRK-cMAG (TS)

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. Gram-negative, width of individual cells is 1-2 µm. Can assimilate acetate but not 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* » *Electronema* » *Electronema halotolerans*

References

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

Registry URL

<https://seqco.de/i:23722>

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