

Species *Electronema haixiense*

Etymology

[hai.xi.en'se] **N.L. neut. adj.** *haixiense*, of Haixi, the region where saline lake is located in Qinghai-Tibet Plateau in China, and this organism was obtained from

Nomenclatural type

[NCBI Assembly: GCA_052784925.1](#)^{Ts}

Description

Filamentous bacteria of centimeter length that inhabit the freshwater/brackish sediment and conduct electrons from sulfide-oxidizing cells to oxygen-reducing cells. Gram-negative. CO₂ fixation via the Wood-Ljungdahl pathway. Contains c-type cytochromes, type IV pili (PilA), Na⁺ antiporters and trk system potassium uptake protein. Polyphosphate and polyglucose storage. Distinguishable by genome.

Classification

Bacteria » *Desulfobacterota* » *Desulfobulbia* » *Desulfobales* » *Desulfobulbaceae* » *Electronema* » *Electronema haixiense*

References

Effective publication: Hu et al., 2025 [1]

Registry URL

<https://seqco.de/i:49667>

References

1. Hu et al. (2025). Insights on adaptive strategies and evolution of cable bacteria in saline lakes. *Limnology and Oceanography*. [DOI:10.1002/lno.70262](https://doi.org/10.1002/lno.70262)