

Species *Danuiimicrobium aquiferis*^{Ts}

Etymology

[a.kwi.fe'ris] N.L. gen. n. *aquiferis*, of an aquifer

Nomenclatural type

[NCBI Assembly: GCA_001804285.1](#)^{Ts}

Description

This species is the nomenclatural type of the genus *Danuiimicrobium*. This species can likely respire, as the genomes encode respiratory complexes I, III and V. Alternative terminal electron acceptors are predicted to be nitrate and nitric oxide, and a metal-reducing cytochrome is also encoded by genomes of this species. Cytoplasmic Group A3 [FeFe], Group 4f [NiFe] and membrane-bound Group 4g [NiFe] hydrogenases are encoded by genomes of this species. Additionally, a reversible acetyl-CoA synthetase is encoded by genomes of this species, which may indicate acetate utilization, and/or alternatively, may indicate simplified acetogenesis through the fermentation of glucose or other sugars to acetate, together with the Group A3 [FeFe] hydrogenase encoded by this species. All genes associated with the production of a Type-4a pilus are present in this species, and a "symbiotic" F-type ATPase, ADP/ATP translocase, and very large ORFs are encoded by genomes of this species. Genome assemblies for this species were recovered from soil and groundwater from Rifle, Colorado, USA, with measurements for samples being reported with an oxygen concentration of 0.29 mM and a pH of 7.28. The type for the species is the genome GCA_001804285.1.

Classification

Bacteria » *Omnitrophota* » *Omnitrophia* » *Omnitrophales* » *Danuiimicrobiaceae* » *Danuiimicrobium* » *Danuiimicrobium aquiferis*^{Ts}

References

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

Registry URL

<https://seqco.de/i:23683>

References

1. Seymour et al. (2023). Hyperactive nanobacteria with host-dependent traits pervade Omnitrophota. *Nature Microbiology*. [DOI:10.1038/s41564-022-01319-1](https://doi.org/10.1038/s41564-022-01319-1)