

Genus *Aquinolibacterium*

Etymology

[A.quin.co.li.bac.te'ri.um] L. fem. n. *aqua*, water; L. masc. / fem. n. *incola*, inhabitant; L. neut. n. *bacterium*, a bacterium; N.L. neut. n. *Aquinolibacterium*, bacterial inhabitant of water

Nomenclatural type

Species *Aquinolibacterium aerophilum*^{Ts}

Description

This genus belongs to the family *Aquinolibacteriaceae*, order *Omnitrophales*, class *Omnitrophia*, phylum *Omnitrophota*. Very large ORFs, respiratory pathways, and sugar and peptide transporters are encoded by the genomes belonging to this genus. Species in this genus encode a cytoplasmic Group A3 [FeFe] hydrogenase, and a reversible acetyl-CoA synthetase that may be used for acetate utilization and/or acetogenesis. Assemblies assigned to this genus originate from lakes, groundwater and soil. The nomenclatural type for the genus is *Aquinolibacterium aerophilum*.

Classification

Bacteria » *Omnitrophota* » *Omnitrophia* » *Omnitrophales* » *Aquinolibacteriaceae* » *Aquinolibacterium*

References

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

Registry URL

<https://seqco.de/i:23676>

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)