

Species *Planktophila alpina*

Etymology

[al.pi'na] L. fem. adj. *alpina*, of the Alps, Alpine

Nomenclatural type

[Genome sc|0004104](#) ^{Is}

Description

Etymology. It is named 'alpinus' after the isolation source of 2 strains of this species, Lake Gossenkollesee, a high alpine mountain lake in Austria.

Brief description. The type species is *Planktophila alpinus* PaE-42 (ENA accession number GCA_965267995), isolated from the epilimnion (5 m depth) of Lake Pavin, France (date: 2022-05-24) via high-throughput dilution to extinction cultivation. Other two strains were isolated in our laboratory from the epilimnion (5m depth) and hypolimnion (8m depth) of Lake Gossenkollesee, Austria. The genome size of the type strain PaE-42 is 1,467,434 bp and has a GC content of 41%, encoding for one rRNA operon and 41 tRNAs. The genome is complete, consisting of a circular chromosome. The genome contains genes encoding rhodopsins. No genes for flagella, pilus assembly or chemotaxis were annotated. The closest isolated relative of this species is *Planktophila aquatilis* IMCC26103, isolated from Lake Soyang (South Korea), with whom it shares an average nucleotide identity of 89.4%. The Current GTDB classification (r220) is d__Bacteria; p__Actinomycetota; c__Actinomycetia; o__Nanopelagicales; f__Nanopelagicaceae; g__Planktophila; s__.

Classification

Bacteria » *Actinomycetota* » *Actinomycetes* » *Nanopelagicales* » *Nanopelagicaceae* » *Planktophila* » *Planktophila alpina*

References

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

Assigned taxonomically: Jezbera et al., 2009 [2]

Registry URL

<https://seqco.de/i:51026>

References

1. Chiriatic et al. (2025). Ecological success in freshwater lakes: insights from novel cultivated lineages of the abundant Nanopelagicales order. *Microbiome*. DOI: [10.1186/s40168-025-02272-X](https://doi.org/10.1186/s40168-025-02272-X)
2. Jezbera et al. (2009). 'Candidatus Planktophila limnetica', an actinobacterium representing one of the most numerically important taxa in freshwater bacterioplankton. *INTERNATIONAL JOURNAL OF SYSTEMATIC AND EVOLUTIONARY MICROBIOLOGY*. DOI: [10.1099/ijs.0.010199-0](https://doi.org/10.1099/ijs.0.010199-0)