Species *Fontibacterium africanum*

Etymology

[a.fri.ca'num] **N.L. neut. adj.** *africanum*, pertaining to the isolation source of the MAG (Lake Malawi) and a prevalence in the African Great Lakes

Nomenclatural type

NCBI Assembly: GCA_965235885.1 [Ts]

Description

Type genome is *Fontibacterium africanum* N-Mw6-13nov23-081 (GCA_965235885.1), a metagenome-assembled genome (MAG) assembled from 50 m depth from Lake Malawi, Malawi (date: 2023-11-13). N-Mw6-13nov23-081 has a genome size of 1.1 Mbp with a genomic GC content of 30%, contains 1 rRNA gene (5S rRNA) and 28 tRNAs. The genome is of high quality, consisting of 7 contigs, with a completeness of 95.2%, contamination of 0% and strain heterogeneity of 0% as assessed with checkM. The metagenome was assembled with FLYE from combined long- and short-read sequencing (Oxford Nanopore and Illumina NovaSeq). Metagenomic fragment recruitment of >600 samples from five continents indicate that the species is present only in the African Great Lakes Malawi, Tanganyika, and Kivu. The closest cultivated relatives are *Fontibacterium commune*, syn. '*Candidatus* Fonsibacter ubiquis' LSUCC0530 (GCF_002688585.1; later reclassified to '*Ca*. Allofontibacter communis'), with an average amino acid identity of 68.64 % and average nucleotide identity of 71.78 % and another newly proposed species, *Fontibacterium abundans* MiE-29 (GCA_965235095.1), with an AAI of 68.51 % and an ANI of 71.6 %. Current GTDB classification (R220): d__Bacteria; p__Pseudomonadota; c__Alphaproteobacteria; o__Pelagibacterales; f__Pelagibacteraceae; g__Fonsibacter; s__Fonsibacter sp016882225.

Classification

Bacteria » *Pseudomonadota* » *Alphaproteobacteria* » *Pelagibacterales* » *Pelagibacteraceae* » *Fontibacterium* » *Fontibacterium africanum*

References

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

Registry URL

https://seqco.de/i:49874

References

1. Fernandes et al. (2025). Ecophysiology and global dispersal of the freshwater SAR11-IIIb genus Fontibacterium. *Nature Microbiology*. DOI:10.1038/s41564-025-02091-8