

Species *Nitrospira defluvii*

Etymology

[de.flu.vi'i] L. n. gen. *defluvii*, wastewater

Nomenclatural type

Strain: DQ059545

Description

Cells are Gram-negative short curved rods in microcolonies with a diameter of 0.5 to 1.2 µm or long spiral-shaped rods with one to four turns, 0.7 to 1.7 µm long, 0.2 to 0.4 µm wide. Aerobic chemolithoautotrophic nitrite oxidizer that uses carbon dioxide as sole carbon source. Optimum growth occurs at 28–32 °C within a range between 10 and 34 °C. The substrate optimum is 1.5–3 mM nitrite. Growth was observed up to a concentration of 30 mM nitrite. Cell growth is characterized by dense formation of microcolonies due to the strong production of EPS.

The G + C content of the DNA is 59.03 mol%. Nucleotide sequence data are available in the GenBank database under the accession number DQ059545.

The type strain A17 (LMG 27402 T, NCIMB 14950 T) was isolated from activated sludge of the municipal wastewater treatment plant in Köhlbrandhöft/Dradenau, Hamburg, Germany.

Classification

Bacteria » *Nitrospirota* » *Nitrospira* » *Nitrospirales* » *Nitrospiraceae* » *Nitrospira* » “*Nitrospira defluvii*”

References

Effective publication: Spieck et al., 2006 [1]

Registry URL

<https://seqco.de/i:86>

References

1. Spieck et al. (2006). Selective enrichment and molecular characterization of a previously uncultured *Nitrospira*-like bacterium from activated sludge. *Environmental Microbiology*. DOI:10.1111/j.1462-2920.2005.00905.x