

Species *Abzuiibacterium crystallinum*^{Ts}

Etymology

[crys.ta.li'num] L. neut. adj. *crystallinum*, crystalline, referring to Crystal Geyser where organism was detected

Nomenclatural type

[NCBI Assembly: GCA_002787155.1](#)^{Ts}

Description

This species is the nomenclatural type for the genus *Abzuiibacterium*. Two unique assemblies are available for the species and range in estimated genome size between 2.4 and 2.6 Mb, with a %GC content of 45.25-45.27 %. Respiratory pathways, including genes associated with respiratory complexes I through V, are present in this species. This species is likely able to respire aerobically, as a cytochrome bd ubiquinol oxidase is encoded by genomes of this species. Predicted alternative electron acceptors include nitrite, and nitric oxide, while metal-reducing cytochromes and a conductive pilin are also encoded by genomes of this species. Additionally, a reversible acetyl-CoA synthetase is also encoded by the genomes, and may be indicative of acetate utilization by this species. A complete set of the genes for the production of a Type 4a-pilus is encoded by genomes of this species. Genomes of this species also encode the "symbiotic" F-type ATPase, an ADP/ATP translocase, and a very large ORF. The genomes originated from metagenomic samples from Crystal Geyser, Utah, USA, with samples taken at a reported temperature of 17.4 °C. The nomenclatural type of the species is the genome GCA_002787155.1.

Classification

Bacteria » *Omnitrophota* » *Omnitrophia* » *Omnitrophales* » *Abzuiibacteriaceae* » *Abzuiibacterium* » *Abzuiibacterium crystallinum*^{Ts}

References

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

Registry URL

<https://seqco.de/i:23672>

References

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