

Species *Methanocrinis alkalitolerans*

Etymology

[a.l.ka.li.to'le.rans.] **N.L. neut. n.** *alkali*, alkali; **L. pres. part.** *tolerans*, tolerating; **N.L. part. adj.** *alkalitolerans*, tolerating high alkalinity

Nomenclatural type

[NCBI Assembly: GCA_029167205.1](#) ^{TS}

Reference Strain

M04Ac

Description

Cells are non-motile, rod-shaped, 1.7–6.5 µm in length and 0.9–1.5 µm in diameter. Can form polar pili/fimbriae-like structures of unknown nature on the surface of the cell. Filaments are formed after long incubation times. Growth occurs at 20–45°C (optimum, 37 °C) and at pH 7.5–10.0 (optimum 9.0); the presence of NaCl is not required. Yeast extract is not essential for growth, but highly stimulatory. Utilizes acetate for methane production. No growth or CH₄ formation is observed on H₂/CO₂, formate, carbon monoxide and methanol. The complete genome of strain M04AcTs, available under the GenBank assembly accession number (GCA_029167205) is the designated nomenclatural type for the species and was recovered from an enrichment culture, cultivated on acetate and established from a terrestrial mud volcano at the Taman Peninsula, Russian Federation. The genome is characterized by a size of 2.44 Mb and a G+C content of 58.31 mol%. Completeness is estimated by CheckM at 99.84% with 0.00% contamination. The GenBank accession number for the 16S rRNA gene sequence of M04AcTs is OQ918309.

Classification

Archaea » *Halobacteriota* » *Methanosarcinia* » *Methanotrichales* » *Methanotrichaceae* » *Methanocrinis* » *Methanocrinis alkalitolerans*

References

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

Registry URL

<https://seqco.de/i:32309>

References

1. Khomyakova et al. (2023). Phenotypic and genomic characterization of *Bathyarchaeum tardum* gen. nov., sp. nov., a cultivated representative of the archaeal class Bathyarchaeia. *Frontiers in Microbiology*. [DOI:10.3389/fmicb.2023.1214631](https://doi.org/10.3389/fmicb.2023.1214631)