Thermobaculum gen. nov. and Thermobaculum terrenum sp. nov.

Submitted by Chuvochina, Maria

Genus *Thermobaculum*

Etymology

[Ther.mo.ba'cu.lum] **Gr. masc. n.** *thermos*, hot; **L. neut. n.** *baculum*, small rod; **N.L. neut. n.** *Thermobaculum*, hot small rod

Nomenclatural type

Species *Thermobaculum terrenum*[Ts]

Description

The description is the same as given by Botero et al., 2004:
Rod-shaped and occurring singly or in pairs, isolated from a geothermally heated soil. Cells stain gram-positive. Growth is strictly aerobic and heterotrophic. Based on analysis of 16S rDNA sequence, Thermobaculum is phylogenetically most closely related to organisms currently represented by environmental PCR clones, with the closest characterized isolates belonging to the phyla Chloroflexi and Thermomicrobia. Type species: Thermobaculum terrenum.

Classification

Bacteria » *Chloroflexota* » *Chloroflexia* » *Thermobaculales* » *Thermobaculaceae* » *Thermobaculum*

References

Effective publication: Botero et al., 2004 [1]

Registry URL

https://seqco.de/i:31968

Species *Thermobaculum terrenum*[Ts]

Etymology

[ter.re'num] **L. neut. adj.** *terrenum*, belonging to earth/soil

Nomenclatural type

NCBI Assembly: GCF_000025005.1 [Ts]

Description

The description is the same as given by Botero et al., 2004:
Cells are non-motile, measuring 1–1.5×2–3 µm, and are enveloped by a thick cell wall (~34 nm with transmission electron microscopy) external to a cytoplasmic membrane. Colonies are pink in color. Growth occurs between 41 and 75 °C (optimum 67 °C), at pH 6–8 (optimum 7.0), and optimally in complex media containing 0.5% NaCl. Growth on yeast extract [required for growth factor(s)], fructose, glucose, ribose, sorbitol, sucrose, xylose, and xylitol. Membrane composed primarily of straightchain and branched fatty acids, murein present in large amounts consistent with thick cell wall, 56.4 mol% G+C. The type strain YNP1T has been deposited in the American Type Culture Collection as accession number ATCC BAA-798 and in the University of Oregon Culture Collection of Microorganisms from Extreme Environments as accession number CCMEE 7001

Classification

Bacteria » *Chloroflexota* » *Chloroflexia* » *Thermobaculales* » *Thermobaculaceae* » *Thermobaculum* » *Thermobaculum terrenum*[Ts]

References

Effective publication: Botero et al., 2004 [1]

Registry URL

https://seqco.de/i:31970

References

1. Botero et al. (2004). Thermobaculum terrenum gen. nov., sp. nov.: a non-phototrophic gram-positive thermophile representing an environmental clone group related to the Chloroflexi (green non-sulfur bacteria) and Thermomicrobia. *Archives of Microbiology*. DOI:10.1007/s00203-004-0647-7

Register List Certificate of Validation

On behalf of the *Committee on the Systematics of Prokaryotes Described from Sequence Data* (SeqCode Committee), we hereby certify that the Register List **seqco.de/r:lei3s4u5** submitted by **Chuvochina, Maria** and including 2 new names has been successfully validated.

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