

# 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*<sup>Ts</sup>

### 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

Proposed: Botero et al., 2004

### Registry URL

<https://seqco.de/i:31968>

## Species *Thermobaculum terrenum*<sup>Ts</sup>

### Etymology

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

### Nomenclatural type

[NCBI Assembly: GCF\\_000025005.1](#)<sup>Ts</sup>

### 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 CCME 7001

### Classification

*Bacteria* » *Chloroflexota* » *Chloroflexia* » “Thermobaculales” » “Thermobaculaceae” » *Thermobaculum* » *Thermobaculum terrenum*<sup>Ts</sup>

## References

Proposed: Botero et al., 2004

## 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](https://doi.org/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](https://seqco.de/r:lei3s4u5) submitted by **Chuvochina, Maria** and including 2 new names has been successfully validated.

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