

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

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Table 1: Complete list of names proposed in the current register list.

Proposed Taxon	Etymology	Description	Parent Taxon	Type	Registry URL
Genus <i>Thermobaculum</i>	[Ther.mo.ba'cu.lum] Gr. <b>masc. n.</b> <i>thermos</i> , hot; L. <b>neut. n.</b> <i>baculum</i> , small rod; N.L. <b>neut. n.</b> <i>Thermobaculum</i> , hot small rod	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.	<i>Thermobaculaceae</i>	<i>Thermobaculum terrenum</i> <sup>Ts</sup>	<a href="https://seqco.de/i:31968">seqco.de/i:31968</a>
Species <i>Thermobaculum terrenum</i> <sup>Ts</sup>	[ter.re'num] L. <b>neut.</b> <b>adj.</b> <i>terrenum</i> , belonging to earth/soil	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	<i>Thermobaculum</i>	NCBI Assembly: GCF_000025005.1 <sup>Ts</sup>	<a href="https://seqco.de/i:31970">seqco.de/i:31970</a>