Microbacterium murale sp. nov., isolated from an indoor wall.

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Abstract

A Gram-positive rod, designated 01-Gi-001(T), was isolated from a wall colonized with moulds. The 16S rRNA gene sequence analysis clearly showed that the isolate belonged to the genus Microbacterium. On the basis of pairwise comparisons of 16S rRNA gene sequences, strain 01-Gi-001(T) was most closely related to Microbacterium hydrocarbonoxydans DSM 16089(T) (98.9% sequence similarity), Microbacterium profundi Shh49(T) (98.7%), Microbacterium phyllosphaerae DSM 13468(T) (98.3%) and Microbacterium foliorum DSM 12966(T) (98.1%). The diagnostic diamino acid of the peptidoglycan was ornithine. The major menaquinones detected were MK-13 and MK-12. The major polar lipids were diphosphatidylglycerol, phosphatidylglycerol, one unknown phospholipid and one unknown glycolipid. The major fatty acids were anteiso-C(15:0), iso-C(16:0) and anteiso-C(17:0), which were in agreement with those reported for other members of the genus Microbacterium. Physiological and biochemical characteristics and DNA-DNA relatedness between strain 01-Gi-001(T) and the type strains of its closest phylogenetic neighbours showed clear differences. For this reason, strain 01-Gi-001(T) (=DSM 22178(T)=CCM 7640(T)) is proposed as the type strain of a novel species, Microbacterium murale sp. nov.

Beteiligte Forschungseinheiten

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