

Ornithinimicrobium murale sp. nov., isolated from an indoor wall colonized by moulds.

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Abstract

A Gram-positive, non-spore-forming actinobacterium (01-Gi-040(T)) isolated from an indoor wall was studied to examine its taxonomic position. The isolate formed a very rudimentary substrate-mycelium that fragmented into rod-shaped to coccoid cells. On the basis of the 16S rRNA gene sequence similarity studies, strain 01-Gi-040(T) was shown to belong to the genus *Ornithinimicrobium* closely related to *Ornithinimicrobium kibberense* K22-20(T) (97.1 %), *Ornithinimicrobium humiphilum* DSM 12362(T) (96.2 %) and *Ornithinimicrobium pekingense* LW6(T) (96.1 %). A close relationship was also found with *Arsenicicoccus bolidensis* CCUG 47306(T) (95.9 %) and *Arsenicicoccus piscis* Kis4-19(T) (95.7 %) and a moderate relationship to the type strains of the genus *Serinicoccus* (94.0-94.1 %). The predominant menaquinone of strain 01-Gi-040(T) was MK-8(H(4)). The peptidoglycan contained ornithine as the diagnostic diamino acid. The polar lipid profile consisted of the lipids phosphatidylinositol, phosphatidylglycerol, diphosphatidylglycerol, an unknown phospholipid, an unknown aminolipid and two unknown phosphoglycolipids. The major fatty acids iso-C(15 : 0), iso-C(16 : 0) and iso-C(17 : 0) were

consistent with the fatty acid patterns reported for members of the genus *Ornithinimicrobium*. The results of DNA-DNA hybridizations, physiological and biochemical tests allowed phenotypic differentiation of strain 01-Gi-040(T) from the three recognized species of the genus *Ornithinimicrobium*. Strain 01-Gi-040(T) represents a novel species of the genus *Ornithinimicrobium*, for which we propose the name *Ornithinimicrobium murale* sp. nov., with the type strain 01-Gi-040(T) (= DSM 22056(T) = CCM 7610(T)).

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