Kytococcus aerolatus sp. nov., isolated from indoor air in a room colonized with moulds.

Kämpfer P, Martin K, Schäfer J, Schumann P (2009) Kytococcus aerolatus sp. nov., isolated from indoor air in a room colonized with moulds. *Syst Appl Microbiol* 32(5), 301-305.

Details

PubMed

Abstract

A Gram-positive, coccoid bacterial isolate (02-St-019/1(T)), forming beige pigmented colonies was obtained from an indoor air sample. Based on 16S rRNA gene sequence similarity studies it was determined that this isolate 02-St-019/1(T) belonged to the genus Kytococcus, showing sequence similarties of 98.6% to Kytococcus schroeteri DSM 13884(T) and 98.3% to Kytococcus sedentarius DSM 20547(T), respectively. The diagnostic diaminoacid of the peptidoglycan was lysine, cell wall sugars were ribose and xylose. The major menaquinones detected were MK-7 and MK-8. The polar lipid profile consisted of the major phospholipids diphosphatidylglycerol, phosphatidylglycerol, phosphatidylinositol, phosphatidylserine and phosphatidylinositol mannoside. Fatty acid patterns were composed of major amounts of the iso- and anteiso-branched fatty acids anteiso C(17:0), iso C(15:0) and iso C(17:0) and unsaturated fatty acids (C(17:1) omega8c, iso C(17:1) omega9c, and C(17:1) omega8c) with smaller amounts of the straight-chain fatty acids C(15:0), C(16:0) and C(17:0). The results of DNA-DNA hybridizations and physiological and biochemical tests clearly allowed a genotypic and phenotypic differentiation of strain 02-St-019/1(T) from the two described Kytococcus species. On the basis of these results a novel

species to be named Kytococcus aerolatus sp. nov., is proposed, with the type strain 02-St-019/1(T) (=DSM 22179(T)=CCM 7639(T)).

Involved units

Bio Pilot Plant Miriam Agler-Rosenbaum Read more

Leibniz-HKI-Authors



Karin Martin

Details

Identifier

doi: 10.1016/j.syapm.2009.05.004

PMID: 19541443