

Lactobacillus caccae sp. nov., a new bacterial species isolated from the human gut microbiota

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Abstract

The increasingly wide knowledge of the microbiota, as well as its continuous relation with several pathologies, favours the interest, discovery and classification of all the bacteria that are part of it. The isolation of strain P3519T is possible thanks to the application of new strategies such as culturomics and taxono-genomics. Strain Marseille-P3519T isolated from the fecal flora of a 25-year-old healthy French woman was a Gram-positive anaerobic bacterium, non-motile and non-spore-forming. The 16S rRNA gene sequence of Marseille-P3519 showed 98.57% of sequence similarity with *Lactobacillus caviae* MOZM2, the closest species, phylogenetically. Its genome had 2,237,367 bp with 45.42 mol% of G+C content. These findings support that strain Marseille-P3519 is a new member of the genus *Lactobacillus* for which the name *Lactobacillus caccae* sp. nov., is proposed.

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