Project Title : Study of Phenotypic Characterization of Lactobacilli Bacteria Isolated from Fermented Foods.

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ABSTRACT

Seventy lactobacilli isolated from various kinds of fermented foods were characterized phenotypically. They were found to be gram-positive rod shape bacilli, non-motile, non-spore forming, and do not possess catalase enzyme or iron porphyrin. All are microaerophiles which can utilize glucose fermentatively, and none can reduce nitrate nor hydrolyse gelatin or starch. No slimy formed from sucrose utilization, and no gas produced from glucose. Some isolates are able to hydrolyse aesculin or arginine. Some can coagulate protein and/or reduce litmus in milk medium. Most of them can ferment gluconate with gas production. Their biochemical reactions in many sugar media tested are varied in acid production. All isolates were found to grow in acid or alkaline media pH of about 4.5 to 8.0 and in broth culture containing 2.0 percent of sodium chloride. Their halotolerant properties in 4.0 -8.0 percent sodium chloride media, however, are varied and seem to be pH and temperature dependent. Moreover these bacteria were found unable to grow in biotin or pyridoxine assay medium. The ability to grow in thiamine or folic acid or riboflavin assay medium was found possible to certain isolates.