

DETERMINATION OF PROBIOTIC CHARACTERISTICS DETERMINATION OF CHEESES LACTOBACILLUS SPP IN AREA OF VENEZUELA CENTROCCIDENTAL

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Introduction: Lactobacillus are a group of Gram-positive, non-spore-forming, rod-shaped bacteria with a fermentative metabolism. The commercial production and use of such bacteria have grown rapidly in the food industry, for the benefits of its use.

The objective of this research was to determine the characteristics of probiotic Lactobacillus spp present in bovine artisanal cheeses made in the region Centroccidental.

Methods: were isolated from biochemical tests, 9 of 13 strains of lactobacilli artisanal cheese samples from different farms in the region Centroccidental. To determine the characteristics of the isolated probiotic used techniques resistance to pH 4.5 and 6.5 using HCl 6.5% NaCl and 2.5 and 5%, proteolytic activity and acidifying to a time of 72 h in MRS broth. Growth at temperatures of 37 to 45 ° C for 72 h in MRS agar, monitoring from 24h in all experiences to verify growth rate.

Results: Table No. 1 presents the results concerning tests on isolates of Lactobacillus spp, which is evidence that strains that had the most growth at low pH, high temperature and low clotting time were samples from strains Lara and Yaracuy States, but not from strains of Falcon state, these had little to moderate growth and increased clotting time. Regarding growth in NaCl shows that no growth was observed in any of them.

Table 3. Results of biochemical tests performed at strain of Lactobacillus isolated.

Sample	pH 4.5	pH 6.5	37°C	45°C	NaCl 2.5%	NaCl 5%	Coagulación (horas)
Yaracuy1	+	++	++	++	-	-	24
Lara1	+	++	++	++	-	-	48
Falcon1	+	++	++	++	-	-	48
Lara2	+++	+++	++	+++	-	-	48
Lara3	+++	+++	++	+++	-	-	72
Yaracuy2	+++	+++	++	+++	-	-	24
Falcon2	+	++	++	+	-	-	72
Lara4	+	++	++	+	-	-	24
Yaracuy3	+	++	++	++	-	-	48

little growth, (+ +) = moderate growth, (+ + +) = abundant growth, (-) = no growth. Source: Mendoza, 2012.

Conclusions: The biochemical tests performed on strains of Lactobacillus spp found, allowed to demonstrate that many of these attributes correspond presented probiotic characteristics such as the ability to adapt to high temperatures and acidic pH, conditions that occur in the stomach of all individual . Another important attribute exhibited by strains was acidifying capacity which ensures generate half unfavorable for the growth of pathogenic microorganisms in the gut of the consumer. However it is important to note that no strain was grown in salt which shows that not adapt to bile salts from the digestive system.

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