Título: DETECTION OF BACTERIOCINIGENIC ACTIVITY FROM LACTIC ACID BACTERIA ISOLATED FROM TRADITIONAL CHESSE

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ABSTRACT

Production of cheese in Cuba is limited and small. The industries are engaged mainly aimed at social work and only a small part is used to market; while the production of cheeses have a substantial increase in recent years. Most of the fresh artisan cheeses are produced without the addition of starter cultures and therefore sometimes health problems occur. The microbiota of milk intervene decisively on the quality of cheese produced and within it the presence of lactic acid bacteria that are able to produce antimicrobial compounds, exopolysaccharides and various enzymes that accompany growth, contributing to aroma, texture, conservation and nutritional value on many occasions. Among the substances with preservative power are bacteriocins are peptides with antimicrobial activity, ribosomalmente synthesized as part of the defense mechanism of the production strain. In this work, lactic acid bacteria bacteriocin-producingin traditional cheese samples were evaluated. Spot on the lawn assaywas used. The spectrum of its activity was proven against grampositive and gramnegative bacteria. 13 lactic acid bacteria isolatedinhibited Listeria innocua LMG 13568, Staphylococcus aureus ATCC 25923, Bacillus subtilis ATCC 10707, Pseudomonas aeruginosa ATCC 10145, Proteus vulgaris ATCC 13315, Salmonella sonei, Escherichia coliATCC 25922 and Lactobacillus plantarum IIIA were by organic acid productionand only Lactococcuslactis sub lactis was bacteriocin-producing againstListeria innocuaand Lactobacillus plantarumIIIA. Lactic bacteria isolated of traditional cheese could be used for food preservation to inhibit the growth of spoilage and pathogens bacteria.

Words key: bacteriocin-producing lactic acid bacteria, traditional cheese, isolated