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## Characteristic of bacteriocin like substance and cholesterol removal of lactic acid bacteria isolated from ewes milk and traditional sour buttermilk in Iran

Mahdieh Iranmanesh<sup>1</sup>, Naheed Mojjani<sup>2</sup>, Hamid Ezzatpanah<sup>1</sup> and Mohammad Amir Karimi Torshizi<sup>3</sup>

<sup>1</sup>Islamic Azad University, Iran

<sup>2</sup>Razi Vaccine and Serum Research Institute, Iran

<sup>3</sup>Tarbiat Modares University, Iran

In this study traditionally made yogurt and sour buttermilk made from ewes milk, were screened for the presence of Lactic acid bacteria (LAB) with probiotic potential. Among 77 isolates identified as LAB, ten isolates showed wide range antibacterial spectrum and were inhibitory towards *Listeria monocytogenes*, *Salmonella enteritidis*, and *Staphylococcus aureus*. Using 50CHL API system, these isolates were identified as *Lactobacillus pentosus*, *Lactobacillus brevis*, *Lactobacillus paracasei* (two strains), *Lactococcus lactis* (two strains) and *Pedococcus acidilactici* (four strains). Among the identified isolates, the antimicrobial activity in the supernatant fluids of *Lactobacillus pentosus* and *Pedococcus acidilactici* remained unaffected by pH neutralization and catalase treatments, while strongly sensitive to the action of proteolytic enzymes used. The antagonistic substances produced by these strains were considered as BLIS. Cholesterol assimilation by both viable and dead cells of these strains was determined in MRS broth containing 0.3% bile salt. The kinetics of bacteriocins produced by two strains were examined and indicated that a direct relationship between the growth rate and the amount of BLIS production. The highest antimicrobial activity of all strains was observed at logarithmic and exponential phases.

### Biography

Mahdieh Iranmanesh is currently a student in Islamic Azad University, Iran.

[mi\\_manesh@yahoo.com](mailto:mi_manesh@yahoo.com)

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