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## Phenotypic Characterization Of Lactobacillus Autochton And Evaluation Of Their Technological And Probiotic Potential

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### Abstract

The aim of the present study was to evaluate the biochemical and physiological characteristics, as well as the technological and probiotic properties of certain autochthonous Lactobacillus isolates. We first confirmed that these bacteria belonged to the genus Lactobacillus by observing their macroscopic appearance, the catalase test and Gram staining. We then studied their biochemical and physiological characteristics, followed by their technological properties. Finally, to assess their probiotic potential, we tested the antibacterial activity of some of these isolates against a pathogenic *S. Aureus* isolated from a urine sample of a patient suffering from a urinary tract infection. The results showed that the majority of the isolates are homofermentative, capable of growing under hostile conditions. Lactobacilli also have good acidifying, proteolytic and lipolytic properties. They produce flavours and EPS and have strong antibacterial properties.

In conclusion, the Lactobacillus isolates tested have good technological properties and could therefore be used in the food industry, especially in the dairy industry. In addition, their use in probiotic treatment, especially in the treatment of urinary tract infections, could represent an alternative to the use of antibiotics.

**Key Words:** Antibacterial activity, Lactic acid bacteria, Lactobacillus, probiotic effects, technological skills.

