

In Vivo Evaluation of the Therapeutic Effect on Intestinal Disorders by Thermophilic Streptococcus Isolated from Camel Milk

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Abstract : The aim of this study is to isolate and select, from camel milk from El-Oued region in Algeria, a strains of lactic acid bacteria and possessing probiotic properties ; and to evaluate their potential effect on intestinal disorders in Wistar rats. The results relating to the selection of probiotic strains confirms that the Thermophilic streptococcus exhibits the best probiotic activity performance, with a resistance important to different degrees of pH and to bile salts, and a remarkable antibacterial activity and resistance to antibiotics compared to the other four isolated strains. In the in vivo study, diseases are induced in rats at the level of the digestive system, it was reported that the administration of Escherichia coli and castor oil caused an intestinal disorders. The microscopic observation of the histological section of the intestine showed a damaged intestinal structure and some symptoms of its irritation, including a decrease in the height of the villi and the presence of others destroyed cells, and after treatment with Streptococcus thermophilus, the microscopic observation of the cut of the histological section of the intestine showed almost complete disappearance of the mentioned symptoms, The dosage of the hematological parameters by complete blood count (CBC) is in agreement with the results of the histological sections.

Keywords : camel milk, probiotic, pathogenic bacteria, intestinal disorders, lactic acid bacteria

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