**ISOLATION OF LACTIC ACID BACTERIA WITH BACTERIOCIN ACTIVITY AND PRODUCTION OF DIFFERENT BACTERIOCINS**

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| **ABSTRACT** Biopreservation systems in foods are of increasing interest to industry and consumers. Bacteriocin-producing *Lactobacillus spp.* known as “Generally Recognized as Safe (GRAS)”, are used for controlling the rapid growth of pathogens and spoilage microbes in food and feed. *Lactobacillus fermentum* was isolated from fecal sample using MRS medium. It was defined morphologically by gram staining and colony morphology. Catalase activity was detected biochemically by methyl red, VP (Voges Proskauer) and carbohydrate fermentation tests. Antibiotic resistance screening of *Lactobacillus fermentum* was confirmed by agar well diffusion method. Molecular characterization and molecular weight of the bacteriocin protein were determined using SDS PAGE. After further characterizations produced bacteriocin proteins will be used as a biopreservative in the food industry in the future. |

# Keywords: Antimicrobial Activity, Bacteriocin, *Lactobacillus spp.*, SDS PAGE