



## Abstract

Probiotics are live microorganisms with beneficial effects on gut health. *Lactobacillus acidophilus* and *L.plantarum* have positive impacts on the gut by changing and increasing the beneficial microflora, prevent from pathogens by different modes of actions like by creating competition for binding sites, showing antimicrobial activity by producing bacteriocins, triggering the mucin by increasing the number of goblet cells in epithelium so that mucus layer become thicker and protect mucosal layer from pathogens. The aim of the study was to evaluate the impact of commercially available probiotics and laboratory isolated probiotics on the gastrointestinal tract of rats. This study was performed on healthy male albino wistar rats as control and one commercially available treated group as positive control and two groups as laboratory isolated and characterized probiotics treated groups. Histomorphometric studies revealed that both commercial and laboratory isolated probiotics has positive impacts on gut by increasing the thickness of mucosal layer and height of villi. Statistical studies revealed that there is a significant difference ( $p<0.05$ ) in weight of GIT and organs, length of GIT, thickness of mucosal layer and height of villi.