Probiotics in the form of fermented dairy products or not, are known as functional foods and have been recommended as an adjunct to diet in health promotion. The objective of this study was to evaluate the effect of different doses of *L. casei* spp. in the modulation of intestinal microbiota. For this, we used 32 adult male rats of Wistar strain, divided into four experimental groups. Animals were fed the basal diet (AIN-93M) for 28 days. After 14 days of the experiment, aliquots of 0.1 mL of reconstituted skimmed milk (RSM), with or without cell concentrate *L. casei* spp. (10⁵, 10⁷, 10⁹ CFU/mL) were administered orally once daily. After this period, the animals were sacrificed for removal of the distal colon and colonic content removed and 0.1 g was added to 9.9 ml of sterile peptone water reduced counts of *Escherichia coli* and *Lactobacillus* spp. Sorbitol and on MacConkey agar LAMVAB respectively. It was found that the different concentrations tested probiotic increased *Lactobacillus* levels (*P*<0.01) and reduced levels of *E. coli* (*P*<0.05). Therefore, it is concluded that supplementation of increasing doses of *L casei* spp. exerted influence on the modulation of the intestinal microbiota, increasing levels of *Lactobacillus* spp. and decreasing levels of *E. coli* in mice. Thus, the consumption of carrier *L. casei* spp. could reduce the colonization of pathogenic microorganisms, thus constituting an alternative in the prevention of infections, especially given the increasingly frequent resistance of pathogenic microorganisms to antibiotics.