Biological activity of probiotics metabolites in human tumor cells HT-29

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Lactobacillus acidophilus and Bifidobacterium longum are component of human microbiota, these are considerate as probiotics. Probiotics are living organisms that when administered in adequate amounts exert a beneficial effect on the health of the host. It has been demonstrated that several probiotic strains exert beneficial effects in both the endogenous microbiota as in the epithelium and the intestinal immune system. There is evidence to suggest that probiotics can prevent or delay the onset of certain types of cancer. Multiple jobs in vivo and in vitro have shown that probiotics detoxify and have antimutagenic properties. It has been shown in some in vitro studies that the extracellular factors have presented biological activity on protozoa and bacteria of medical significance; in this work were obtained probiotics metabolites of L. acidophilus and B. longum to determine the biological activity on the cell line HT-29 human colon cancer. Was evaluated in vitro the lyophilized extracellular metabolites of L. acidophilus and B. longum, at different doses, there was a marked inhibition of the growth of HT-29, doses showed better inhibition of cell growth were a13 and 26mg/mL. It is concluded that the probiotics metabolites of L. acidophilus and B. longum inhibit the growth of HT-29 and this can generate bioassays in vitro and in vivo to demonstrate the antagonist activity of probiotics in cancer cells as well as the metabolites involved in the process of inhibitory HT-29.

Biography

Barrón González M P is Chemist, Bacteriologist and Parasitologist since 1997, Master of Science in Microbiology since 2005, Doctor of Science in Microbiology in 2007 at the Universidad Autonoma de Nuevo Leon, Mexico. He conducts research in antibiosis in medically important microorganism (emphasis on probiotics and protozoan pathogens). He is Professor of Cell Biology. He has 9 articles published in international refereed journals or indexed (more than 25 citations). He was awarded Best research of the year by Secretaría de Salud del Estado de Nuevo León, México (1997 at 2013).

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