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LACTOBACILLUS SP. AS A PROBIOTICS FOR IMPROVING HUMAN HEALTH AS WELL AS SPECIAL EMPHASIS ON CANCER DISEASE

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ABSTRACT

Probiotics are live microbial food supplements that can be considered a functional food. They benefit the health of a host animal by maintaining their intestinal microbial balance. Colon cancer is the fourth most common cause of cancer-related mortality in the world. The aim of this study was to investigate the anti-proliferative effects of the cell-free filtrate of 12 isolates of lactic acid bacteria. The twelve isolates were selective from 150 isolates isolated from dairy product. The chose isolates were tested on human HCT116 cell line (colon cancer). The filtrates of LAB isolates were found to inhibit the growth of colon cancer cells in a dose-dependent manner as detected by the neutral red uptake assay for the estimation of cell viability/cytotoxicity protocol. The isolates gave different inhibitory effect. The isolate No.8 gave full inhibition of colon cancer viability and defined by API test as *Lactobacillus fermentus*.

Key word: colon cancer, Lactic acid bacteria, *Lactobacillus*, probiotic bacteria,