

عنوان مقاله:

Effect of Storage Time and Concentration of Aflatoxin M₁ on Toxin Binding Capacity of *L. acidophilus* in Fermented milk Product

محل انتشار:

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خلاصه مقاله:

Aflatoxins are potent carcinogenic and immunosuppressive agents. Acute exposure to high level of aflatoxins leads to aflatoxicosis, which cause rapid death due to liver failure. Immune modulating effects of probiotic bacteria have good prospects to detoxification of natural foods. This study was aimed to investigate the ability of *Lactobacillus acidophilus* strain LA-۵ in the presence and absence of yoghurt starter culture for removing Aflatoxin M₁ (AFM₁) in comparison with yoghurt starter cultures (10⁸ CFU ml⁻¹). AFM₁ detoxification was evaluated for ۲۱ days of yoghurt storage at ۴°C at different concentrations of Aflatoxin (0.1, 0.5 and 0.75 μg L⁻¹). The amounts of unbound AFM₁ were determined using competitive Enzyme-Linked Immunosorbent Assay (ELISA). *L. acidophilus* combined with yoghurt starter culture and alone could significantly ($P \leq 0.05$) remove AFM₁ compared to control group. The results indicated that increasing initial AFM₁ concentration in the yoghurt samples and storage time affected the capacity of AFM₁ binding

کلمات کلیدی:

Aflatoxin M₁, Biological detoxification, Enzyme-linked immunosorbent assay, Lactic acid bacteria, Yoghurt

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