

In vivo effects of Lactobacillus plantarum MTCC1325 on D-Galactose induced Alzheimer's disease

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The present investigation was aimed to assess the protective effect of *Lactobacillus plantarum* MTCC1325 against D-Galactose induced Alzheimer's disease (AD) in male albino rats. Recently, we have demonstrated that *L. plantarum* modulates the functions of total ATPases and ameliorates the pathological features of AD. In this study, we have evaluated the potential antioxidant nature of *L. plantarum* through in vitro assays (DPPH, NO and H₂O₂), and then estimated the antioxidant enzymes (SOD, CAT and GR) and lipid peroxidation levels (MDA) in vivo in selected brain regions such as hippocampus and cerebral cortex of male albino rats. Further, the alterations in gene expressions (BDNF and AChE) in the

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