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Effect of Ethanol extract isolated from *Peacilomyces tenuipes* against oxidative stress in Hepa1c1c7 cell

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Oxidative stress is considered to be associated with many diseases, such as inflammatory and cardiovascular diseases, aging, and cancer. An important etiological mechanism of these diseases may be a causal relationship between the presence of oxidants and the generation of lipid hydroperoxides derived from enzymatic reactions or xenobiotic metabolism. The aim of this study was to evaluate the ability of ethanol extract isolation from *Peacilomyces tenuipes* (EPT) to affect cellular response in Hepa1c1c7 to t-butyl hydroperoxide (t-BHP) induced oxidative stress and hepatotoxicity. EPT-induced cells showed an increased resistance to oxidative challenge, as revealed by a higher percent of survival capacity in respect to control cells. EPT reduced t-BHP-induced lipid peroxidation measured as production of malondialdehyde and induced intracellular reduced glutathione depletion by t-BHP. Furthermore, EPT protected from the t-BHP-induced intracellular generation of reactive oxygen species assessed by monitoring dichlorodihydrofluorescein fluorescence. It can be concluded that EPT exerts an antioxidant action inside the cell, responsible for the observed modulation of the cellular response to oxidative challenge, and EPT has a marked antioxidative and hepatoprotective potency.

Key Word : *Peacilomyces tenuipes*, t-butyl hydroperoxide, antioxidant