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Inonotus obliquus protects against oxidative stress-induced apoptosis and premature senescence

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Abstract

In this study, we investigated the cytoprotective effects of *Inonotus obliquus* against oxidative stress-induced apoptosis and premature senescence. Pretreatment with *I. obliquus* scavenged intracellular ROS and prevented lipid peroxidation in hydrogen peroxide-treated human fibroblasts. As a result, *I. obliquus* exerted protective effects against hydrogen peroxide-induced apoptosis and premature senescence in human fibroblasts. In addition, *I. obliquus* suppressed UV-induced morphologic skin changes, such as skin thickening and wrinkle formation, in hairless mice *in vivo* and increased collagen synthesis through inhibition of MMP-1 and MMP-9 activities in hydrogen peroxide-treated human fibroblasts. Taken together, these results demonstrate that *I. obliquus* can prevent the aging process by attenuating oxidative stress in a model of stress-induced premature senescence.

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Figures

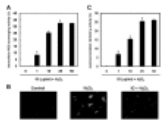


Fig. 1.. Effect of *I. obliquus* on...

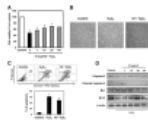


Fig. 2.. Effect of *I. obliquus* on...

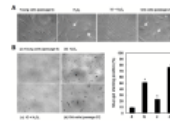


Fig. 3.. Effect of *I. obliquus* on...

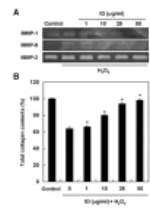


Fig. 4.. Effect of *I. obliquus* on...

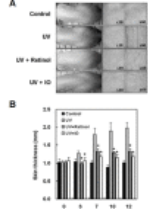


Fig. 5.. Effect of *I. obliquus* on...

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