

Anti-aging effect of *Urtica canabina* extracts in Human dermal Fibroblast

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Urtica canabina, the stinging nettle of Urticaceae family with very high therapeutical values, has been widely used for treating diseases in Western Asia from Siberia to Iran. Chronic exposure of Ultraviolet (UV) leads to a variety of skin damage such as sun-burn, pigmentation, premature aging and photocarcinogenesis. Moreover, the response of inflammation and photo-damage against UV induced skin can be aggravated by reactive oxygen species (ROS) induced by UV irradiation. In this study, the antioxidant capacity of was determined by means of scavenging activity of free radical 2,2-diphenyl-1-picrylhydrazyl (DPPH) and total phenol assay (Folin-Ciocalteu) method. UCW showed potent antioxidant activity. Also, the Anti-aging effect of UCW were examined the mRNA levels of MMP-1 and type I procollagen after UVB irradiation by reverse transcription-polymerase chain reaction (RT-PCR). Treatment of UCW extract after UVB irradiation in human dermal fibroblast significantly inhibited the expressions of IL-1, IL-6, and COX-2 in mRNA levels. These results point to the potential use of UCW as agent for cutaneous inflammation response.