

Inhibitory effects of *Thalictrum rochebrunianum* var. *grandisepalum* on tyrosinase in IBMX-induced B16F10 melanoma cells

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ABSTRACT

Thalictrum rochebrunianum var. grandisepalum (TRG) is a Korean endemic plant, and it is widely used for edible, medicinal, landscape materials. In this study, we examined the protein and mRNA expression levels of MITF, tyrosinase, TRP-1 and TRP-2 by TRG extract (TRGE) in IBMX-treated melanocytes to evaluate the possibility of using TRG as a whitening material. IBMX were reported as melanin synthesis enhancers. It could increase intracellular melanin synthesis by activation of the microphthalmia-associated transcription factor (MITF) signaling pathway. TRGE did not show cytotoxicity at concentrations below 100 μ g / ml in B16F10 cells. TRGE dose-dependently inhibited protein and mRNA levels of MITF, tyrosinase, TRP-1 and TRP-2. Therefore, we suggest that TRGE is an important natural resource for cosmetic raw materials for whitening function.

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