

The Branch Extracts of *Vaccinium oldhamii* Stimulate Melanin Synthesis Through Activation of Tyrosinase Activity in B16F10 Melanoma Cells

Su Bin Park¹, Ha Na Kim¹, Jeong Dong Kim¹, Gwang Hun Park²,
Ho-Jun Son², Hyun Ji Eo², Jeong Ho Song², Hyung Jin Jeong¹
and Jin Boo Jeong^{1,3*}

¹Department of Medicinal Plant Resources, Andong National University, Andong 36729, Korea

²Forest Medicinal Resources Research Center, National Institute of Forest Science, Yeongju 36040, Korea

³Agricultural Science and Technology Research Institute, Andong National University, Andong, 36729, Republic of Korea

In this study, we investigated the effect of branch extracts from *Vaccinium oldhamii* (VOB) on melanin synthesis in B16F10 cells. VOB promoted melanin production in absence or presence of α -melanocyte-stimulating hormone (α -MSH) in B16F10 cells. However, VOB did not affect the expression of tyrosinase and TRP-1 associated with melanin synthesis at the mRNA and protein level in B16F10. But, VOB decreased TRP-2 protein level and induced tyrosinase activation in B16F10 cells. Inhibition of tyrosinase activity and tyrosinase knockdown attenuated VOB-mediated melanin synthesis. In conclusion, it is thought that VOB may stimulate melanin synthesis through activating tyrosinase activity.

Key words: Melanin, Melanogenesis, Tyrosinase activity, *Vaccinium oldhamii*

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