

Study on the Anti-oxidant Activity of Extracts from the *Sambucus sieboldiana* var. *pendula*

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The recent study indicates the efficacy of the natural antioxidants of cosmeceutical and medicinal industries as resource. The *Sambucus sieboldiana* var. *pendula* is speciality tree of Ulleungdo. In the investigated anti-oxidant activity of 70% ethanol extracts and water extract from the branch and leaf of *Sambucus sieboldiana* var. *pendula* was extent. The anti-oxidant activity was determined by using measuring of electron donating ability, ABTS•⁺ cation radical scavenging activity, superoxide dismutase like activity, nitric oxide radical scavenging activity and elastase inhibition assay. In the result of electron donating activity, branch and leaf showed an effect of over 75% at 100 $\mu\text{g}/\text{ml}$ of ethanol extracts. ABTS•⁺ cation radical scavenging activity of all extracts at 100 $\mu\text{g}/\text{ml}$ concentration was showed over 800%. Superoxide dismutase like activity, branch showed more than 18% at 1,000 $\mu\text{g}/\text{ml}$. In the NO radical scavenging ability, water extract of branch showed an effect of over 95% at 500 $\mu\text{g}/\text{ml}$ and leaf showed an effect of over 97% at 1,000 $\mu\text{g}/\text{ml}$. nitric oxide radical scavenging activity, ethanol extract showed an effect of over 40% at 100 $\mu\text{g}/\text{ml}$. Also elastase inhibition assay, ethanol extract showed over 37% at 500 $\mu\text{g}/\text{ml}$. These results demonstrates its potential as anti-oxidants of *Sambucus sieboldiana* var. *pendula*.

Key words : *Sambucus sieboldiana* var. *pendula*, anti-oxidantive activity, cosmeceutical