

## The Anti-oxidant Effect of Extracts from the *Dystaernia takeshimana* root

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The *Dystaernia takeshimana* as speciality wild flower of Ulleungdo is important resource of the natural antioxidants of cosmeceutical and medicinal industries. In the investigated anti-oxidant activity of 70% acetone extracts, 70% ethanol extracts, and water extract from the *Dystaernia takeshimana* root was extent. The anti-oxidant activity was determined by using measuring of electron donating ability, ABTS•<sup>+</sup> cation radical scavenging activity, superoxide dismutase like activity, nitric oxide radical scavenging activity and elastase inhibition assay. In the result of electron donating activity, root showed an effect of over 80% at 1,000  $\mu\text{g/ml}$  of acetone extracts. ABTS•<sup>+</sup> cation radical scavenging activity of all of root extracts at 500  $\mu\text{g/ml}$  concentration was showed over 90%. Superoxide dismutase like activity, root showed less than 18% at 1,000  $\mu\text{g/ml}$ . In the NO radical scavenging ability, root showed an effect of over 40% at 1,000  $\mu\text{g/ml}$  of water extracts. Also elastase inhibition assay, root showed less than 10% at 1,000  $\mu\text{g/ml}$  of all extracts. From these results, we can confirmed that *Dystaernia takeshimana* has anti-oxidant ability and a potential as natural anti-oxidant agent for utilization of cosmeceutical and bio-industries.

**Key words** : *Dystaernia takeshimana*, anti-oxidantive activity, cosmeceutical