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## Comparison of anti-oxidant effects of *Platycodon grandiflorum* extract by extract processes

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Oxidative stress due to excessive accumulation of reactive oxygen species is one of the risk factors for the development of diverse diseases such as aging, inflammation, cancer, and skin diseases. *Platycodon grandiflorum* (called as "Doragi" in Korean) has been widely used as an important herb in Korean traditional medicine as well as food intake. In this study, we investigated the antioxidant effects of *Platycodon grandiflorum* according to the three extract methods including water extract (WE), 25% ethanol extract (25EE), and 50% ethanol extract (50EE). 50EE showed the highest antioxidant activities in 2, 2'-diphenyl-1-picrylhydrazyl radical, 2, 2'-azino-bis (3-ethylbenzothiazoline-6-sulfonic acid) radical and ferric reducing antioxidant power assay. Moreover, 50EE exhibited the highest total phenolic contents (TPC), suggesting that the relative antioxidant activities of these extracts were correlated with TPC. Therefore, these results indicate that 50EE is a viable therapeutic agent against oxidative stress associated diseases and ethanol extraction is the better method to improve the antioxidant properties.

### Biography

Suhyun Hong has completed her PhD and Post-doctoral studies from Donggeui University College of Korean Medicine. She is the Professor of Donggeui University College of Korean Medicine. She has published more than 30 papers in journals. She is named as the Marquis Who's Who Publication Board 2016.

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