

## W13

### Antioxidant activity of *phalaenopsis* Sogo Yukidian 'V3' plant parts

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#### Abstract

Various extracts of roots, stems, and leaves of *Phalaenopsis* Sogo Yukidian 'V3' were evaluated for total phenolics, total flavonoids, and antioxidant capacity. The conjugate form of stem samples contained the highest total phenolics (5.092 ± 0.739 mg gallic acid equivalent per g dry weight) and the highest total flavonoids (2.218 ± 0.021 mg rutin equivalent per g dry weight) was found in the hexane extract of leaves. The ethyl acetate extract of roots showed the maximum antioxidant activity as compared to other extracts. Of which, the IC<sub>50</sub> value of this sample were 0.070 mg/mL and 0.450 mg/mL in the 2,2- diphenyl-1-picrylhydrazyl (DPPH) free radical scavenging assay and reducing power, respectively, while the lipid peroxidation inhibition (LPI) value was as 94.2% by β-carotene bleaching method. Five phenolic compounds including caffeic acid, syringic acid, vanillin, ellagic acid, and cinnamic acid were quantified by high-performance liquid chromatography (HPLC). It is suggested that roots of the hybrid *Phalaenopsis* Sogo Yukidian 'V3' can be explodited as an effective source of antioxidants.

**Keywords:** *Phalaenopsis* Sogo Yukidian 'V3'; antioxidant activity; phenolic compounds. (check the required style of the congress)

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