

**IDENTIFICATION OF TOTAL PHENOLIC AND  
FLAVONOID CONTENT IN DIFFERENT PARTS OF**  
*Orthosiphon stamineus*

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## ABSTRACT

### IDENTIFICATION OF TOTAL PHENOLIC AND FLAVONOID CONTENT IN DIFFERENT PARTS OF *Orthosiphon stamineus*

The herb plants are getting global attention and the *Orthosiphon stamineus* has been widely commercialized around the world into the tea product. However, the commercialization of *O. stamineus* is limited to its leaf only. This study aims to determine the phenolic and flavonoid content in flower, leaf, stem and root parts; and identify the part that has the highest content of phenolic and flavonoid. Phytochemical screening is done in which ferric chloride test for phenolic and alkaline reagent test for flavonoid. For the concentration, Folin-Ciocalteu method is for phenolic and aluminium chloride colorimetric assay is for flavonoid. As a result, the colour change of deep blue black appears indicating the presence of phenolic and the yellowish colour change appears indicating the presence of flavonoid. For concentration, the leaf shows the highest reading with  $30.531 \pm 0.002$  mg/ml for phenolic content and followed by flower, stem and root. For flavonoid content, the leaf has the highest content with  $0.751 \pm 0.005$  mg/ml and followed by flower, root and stem. The study proves that the leaf has the highest phenolic and flavonoid content with significant difference between the concentrations of the other parts.