EFFECTS OF ETHANOL CONCENTRATION ON THE TOTAL FLAVONOIDS AND TANNINS CONTENT OF *Melastoma malabathricum*

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ABSTRACT

EFFECT OF ETHANOL CONCENTRATION ON THE TOTAL FLAVONOIDS AND TANNINS CONTENT OF *Melastoma malabathricum* LEAVES

Melastoma malabathricum (Melastomaceae) also known as senduduk among Malaysian is a small shrub with various medicinal uses. Research has been conducted to determine the levels of flavonoids and tannins in leaves of *Melastoma malabathricum* using a variation of the concentration of ethanol. Concentration of ethanol used in this research are 30%, 50% and 70%. Levels of flavonoids in the sample solution were calculated with Catechol Equivalent (CE) while the levels of tannins were calculated with Gallic Acid Equivalent (GAE). The results showed levels of flavonoids in leaves of *Melastoma malabathricum* with 30%, 50% and 70% ethanol were 0.47 mg CE/g ± 0.19, 0.57 mg CE/g ± 0.19, 70% and 1.68 mg CE/g ± 1.82 respectively. While the levels of tannins in *Melastoma malabathricum* leaves with 30%, 50% and 70% ethanol were 2.60 mg of GAE/g ± 0.01, 2.23 mg of GAE/g ± 0.14 and 1.28 mg of GAE/g ± 0.01 respectively. This result were significant at $p<0.05$. This result will be very helpful as a guidance to choose the best solvent concentration for *Melastoma malabathricum* extraction.