

**ABSTRAK**

Judul : Pengukuran Kandungan Total Fenol dan Flavonoid dari Ekstrak dan Fraksi Tanaman Sarang Semut (*Myrmecodia erinaceae* Becc) Terhadap Aktivitas Antioksidan

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Program Studi : Farmasi

Tanaman sarang semut (*Myrmecodia erinaceae* Becc.) merupakan tanaman herbal asli Papua yang diketahui mengandung fenol, flavonoid dan tanin. Penelitian ini bertujuan menguji total fenol, total flavanoid dan aktivitas antioksidan senyawa ekstrak etanol 80%, fraksi air, fraksi etil asetat, fraksi *n*-butanol, fraksi *n*-heksana tanaman sarang semut yang berasal dari Timika Papua. Tanaman sarang semut (*Myrmecodia erinaceae* Becc.) diekstraksi secara maserasi menggunakan pelarut etanol 80% kemudian di fraksi menggunakan etil asetat, *n*-heksan dan *n*-butanol. Hasil ekstrak dan fraksi kemudian diuji kandungan total fenol, kandungan total flavanoid dan aktivitas antioksidan. Hasil pengujian menunjukkan hasil total fenol pada ekstrak etanol 80%, fraksi air, fraksi etil asetat, fraksi *n*-butanol, fraksi *n*-heksan yaitu berturut - turut sebesar 809,27 ± 17,52 mg GAE/g, 704,79 ± 8,07 mg GAE/g, 726,24 ± 35,76 mg GAE/g, 586,68 ± 33,70 mg GAE/g, 254,49 ± 36,97 mg GAE/g. Pengujian terhadap kandungan total flavanoid dengan menggunakan pereaksi AlCl<sub>3</sub>. Hasil pengujian menunjukkan hasil total flavanoid pada ekstrak etanol 80%, fraksi air, fraksi etil asetat, fraksi *n*-butanol, fraksi *n*-heksan yaitu sebesar 109,28 ± 2,53 mg QE/g, 93,36 ± 6,81 mg QE/g, 68,22 ± 1,32 mg QE/g, 78,83 ± 4,16 mg QE/g, 16,04 ± 0,25 mg QE/g. Pengujian aktivitas antioksidan dengan metode DPPH dengan pembanding vitamin C. Aktivitas antioksidan diperoleh IC<sub>50</sub> ekstrak etanol 80%, fraksi air, fraksi etil asetat, fraksi *n*-butanol, fraksi *n*-heksana dan vitamin C berturut-turut sebesar 6,589 ppm, 14,109 ppm, 14,947 ppm, 10,742 ppm, 66,412 ppm dan 14,932 ppm. Berdasarkan hasil IC<sub>50</sub>, ekstrak etanol 80% tanaman sarang semut menunjukkan aktivitas antioksidan sangat kuat.

Kata kunci : *Myrmecodia erinaceae* Becc., Total Fenol, Total Flavonoid, IC<sub>50</sub> , DPPH

**ABSTRACT**

Title : Measurement of Total Phenol and Flavonoid Content of Extracts and Fraction of Ants' Nest Plants (*Myrmecodia erinaceae* Becc) Against Antioxidant Activity

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Ants nest plant (*Myrmecodia erinaceae* Becc.) is a native Papuan herbal plant which is known to contain phenols, flavonoids and tannins. This study aims to examine the total phenol, total flavonoid and antioxidant activity of 80% ethanol extract compounds, water fraction, ethyl acetate fraction, *n*-butanol fraction, *n*-hexane fraction of ant nest plants originating from Timika Papua. Ants nest plant (*Myrmecodia erinaceae* Becc.) was extracted by maceration using 80% ethanol solvent and then fractionated using ethyl acetate, *n*-hexane and *n*-butanol. The extracts and fractions were then tested for total phenol content, total flavonoid content and antioxidant activity. The test results showed the total phenol in 80% ethanol extract, water fraction, ethyl acetate fraction, *n*-butanol fraction, *n*-hexane fraction, which were  $809.27 \pm 17.52$  mg GAE/g,  $704.79 \pm 8.07$  mg GAE/g,  $726.24 \pm 35.76$  mg GAE/g,  $586.68 \pm 33.70$  mg GAE/g,  $254.49 \pm 36.97$  mg GAE/g. Testing of total flavonoid content using  $AlCl_3$  reagent. The test results showed that the total flavonoids in the ethanol extract 80%, water fraction, ethyl acetate fraction, *n*-butanol fraction, *n*-hexane fraction were  $109.28 \pm 2.53$  mg QE/g,  $93.36 \pm 6.81$  mg QE/g,  $68.22 \pm 1.32$  mg QE/g,  $78.83 \pm 4.16$  mg QE/g,  $16.04 \pm 0.25$  mg QE/g. Testing of antioxidant activity using the DPPH method with comparison of vitamin C. Antioxidant activity obtained by  $IC_{50}$  of 80% ethanol extract, water fraction, ethyl acetate fraction, *n*-butanol fraction, *n*-hexane and vitamin C fractions were 6,589 ppm, 14,109 ppm, 14,947 ppm, 10,742 ppm, 66,412 ppm and 14,932 ppm. Based on  $IC_{50}$  results, 80% ethanol extract of ant nests showed very strong antioxidant activity.

Key words : *Myrmecodia erinaceae* Becc., Total Phenol, Total Flavonoid,  $IC_{50}$ , DPPH