PENGARUH VARIASI KONSENTRASI METANOL TERHADAP AKTIVITAS ANTIOKSIDAN DPPH EKSTRAK METANOL DAUN JAMBU BIJI PUTIH *(Psidium guajava* L.*)*

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INTISARI

Latar Belakang : Radikal bebas dapat dicegah menggunakan antioksidan alami, salah satunya tanaman yang mengandung flavonoid. Daun jambu biji merupakan tanaman yang mengandung flavonoid. Untuk mendapatkan senyawa flavonoid, diperlukan ekstraksi dengan pelarut. Perbedaan konsentrasi pelarut diketahui dapat mempengaruhi hasil ekstraksi.
Tujuan Penelitian: Untuk mengetahui pengaruh variasi konsentrasi pelarut metanol dengan konsentrasi 25%, 50%, dan 100% terhadap aktivitas antioksidan DPPH dan kadar flavonoid total ekstrak metanol daun jambu biji putih.
Metode penelitian: Daun jambu biji putih dimaserasi menggunakan metanol dengan variasi konsentrasi (25%, 50%, dan 100%). Dilakukan analisis kualitatif uji fitokimia dan analisis kuantitatif penentuan aktivitas antioksidan metode DPPH dan kadar flavonoid total menggunakan spektrofotometer UV-Vis.
Hasil Penelitian: Ketiga ekstrak mengandung senyawa flavonoid, saponin, steroid, dan tanin dengan intensitas warna yang berbeda. Aktivitas antioksidan ekstrak metanol daun jambu biji 25%, 50%, dan 100% berturut-turut adalah 1077,213 ± 4,570; 452,708 ± 2,326; dan 198,929 ± 2,086. Kandungan flavonoid total diperoleh hasil dari ekstrak metanol daun jambu biji 25%, 50%, dan 100% berturut-turut adalah 0,583 ± 0,008 (% b/b); 1,245 ± 0,004 (% b/b); dan 4,106 ± 0,005 (% b/b).
Kesimpulan: Semakin tinggi konsentrasi metanol, semakin tinggi pula kadar flavonoid total dan aktivitas antioksidan ekstrak metanol daun jambu biji (Psidium guajava L.)

Kata Kunci; Antioksidan, Daun Jambu Biji, DPPH

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THE INFLUENCE OF VARIATIONS IN METHANOL CONCENTRATION ON DPPH ANTIOXIDANT ACTIVITY OF METHANOL EXTRACTS OF WHITE GUAVA LEAF (*Psidium guajava* L.)

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ABSTRACT

Background: Free radicals can be prevented by using natural antioxidants, one of them is plants that contain flavonoid. Guava leaf is a plant which has it. In order to obtain flavonoid compounds, extraction with solvents is needed. The differences in the solvent is known to influence the extraction results.
Objectives: To find out the effect of variations in the concentration of methanol solvent with the concentration of 25%, 50%, and 100% toward the DPPH antioxidant activities and the total flavonoid content of methanol extract in guava leaf.
Method: White guava leaf was macerated by using methanol with various concentrations (25%, 50%, and 100%). Qualitative analysis of phytochemical tests and quantitative analysis of the determination of antioxidant activity using the DPPH method and total flavonoid levels were done by using UV-Vis spectrophotometer.
Results: The three extracts contained flavonoid compounds, saponins, steroids, and tannins with different color intensities. The antioxidant activities of the guava leaf methanol extract of 25%, 50%, and 100%, were 1077,213 ± 4,570; 452,708 ± 2,326; and 198,929 ± 2,086, respectively. The totals flavonoid content obtained from the methanol extract of guava leaf of 25%, 50%, and 100%, were 0.583 ± 0.008 (% w/w); 1.245 ± 0.004 (% w/w); and 4.106 ± 0.005 (% w/w) respectively.
Conclusion: The higher the concentration of methanol, the higher the total flavonoid content and antioxidant activities of methanol extract in guava leaf (Psidium guajava L.).
Keywords: *Antioxidant, Guava Leaf, DPPH*

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