

PENGARUH METODE EKSTRAKSI TERHADAP KADAR FLAVONOID TOTAL DAUN JERUK NIPIS (*Citrus aurantifolia*)

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INTISARI

Latar Belakang: Jeruk Nipis (*Citrus aurantifolia*) merupakan salah satu tanaman yang sering digunakan oleh masyarakat sebagai bumbu dapur. Daun jeruk nipis juga memiliki manfaat kesehatan yaitu sebagai antiinflamasi, penambah nafsu makan, antidiare, menurunkan berat badan. Aktivitas tersebut tidak lepas dari senyawa metabolit sekunder yang terkandung pada daun jeruk nipis salah satunya flavonoid. Penarikan senyawa flavonoid pada daun jeruk nipis dapat dimaksimalkan menggunakan metode ekstraksi yang sesuai.

Tujuan Penelitian: Pengaruh metode ekstraksi terhadap kadar flavonoid total pada daun jeruk nipis

Metode Penelitian: Daun jeruk nipis diekstraksi dengan etanol 96% (1:10) menggunakan metode maserasi dan UAE. Uji kualitatif dilakukan dengan uji skrining fitokimia. Uji kuantitatif dengan mengukur kadar flavonoid total ekstrak daun jeruk nipis hasil maserasi dan UAE menggunakan spektrofotometri UV-Vis. Data kuantitatif yang diperoleh kemudian dianalisis secara statistik menggunakan SPSS uji *Independent Samples T-Test* dengan taraf kepercayaan 95%.

Hasil Penelitian: Ekstrak daun jeruk nipis hasil maserasi diperoleh rendemen sebesar 14,43% dan hasil UAE 8,77%. Hasil uji skrining fitokimia menunjukkan ekstrak daun jeruk nipis mengandung senyawa fenolik, saponin, tanin, alkaloid, flavonoid dan terpenoid. Kadar flavonoid total yang diperoleh dari ekstrak daun jeruk nipis hasil maserasi dan UAE berturut-turut sebesar $38,626 \pm 0,321$ mg QE/g dan $36,876 \pm 0,368$ mg QE/g.

Kesimpulan: Metode ekstraksi mempengaruhi kadar flavonoid total daun jeruk nipis. Metode ekstraksi UAE menghasilkan kadar flavonoid yang lebih tinggi dibandingkan dengan metode maserasi.

Kata Kunci: Daun Jeruk Nipis;Kadar Flavonoid total;Maserasi,UAE

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THE EFFECT OF EXTRACTION METHOD ON FLAVONOID LEVELS TOTAL FLAVONOID CONTENT OFF LIME LEAVES (*Citrus aurantifolia*)

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ABSTRACT

Background : Lime (*Citrus aurantifolia*) is a plant that is often used by people as a kitchen spice. Lime leaves also have health benefits, namely as anti-inflammatory, increasing appetite, anti-diarrhea, and reducing weight. This activity cannot be separated from the secondary metabolite compounds contained in lime leaves, one of which is flavonoids. The extraction of flavonoid compounds from lime leaves can be maximized using appropriate extraction methods.

Research Objective : To determine the effect of extraction methods on total flavonoid levels in lime leaves.

Research Method : Lime leaves were extracted with 96% ethanol (1:10) using the maceration and UAE method. Qualitative tests were carried out using phytochemical screening tests. Quantitative test by measuring the total flavonoid content of macerated lime leaf extract and UAE using UV-Vis spectrophotometry. The quantitative data obtained was then analyzed statistically using the SPSS Independent Samples T-Test with a confidence level of 95%.

Research Results : The yield value of the maceration method was 14.43% and the UAE method was 8.8%. The total flavonoid content produced by the UAE method was 38.626 ± 0.321 mg QE/g extract, and the maceration method was 36.876 ± 0.368 mg QE/g.

Conclusion : There is an influence of the extraction method on the total flavonoid content of lime leaves, where the UAE extraction method produces higher flavonoid levels compared to the maceration method.

Keywords: Lime Leaves, Flavonoid Content, Maceration, UAE

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