

**PENGARUH VARIASI METODE EKSTRAKSI TERHADAP KADAR  
FLAVONOID TOTAL EKSTRAK ETANOL 70% DAUN KETUMBAR  
(*Coriandrum sativum* L.)**

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Daun ketumbar merupakan salah satu tanaman yang banyak digunakan sebagai rempah atau bahan makanan dan dapat dikembangkan sebagai obat berkhasiat. Daun ketumbar mengandung metabolit sekunder flavonoid, alkaloid, saponin, tanin, glikosida dan steroid. Senyawa flavonoid memiliki sifat antioksidan yang bermanfaat bagi kesehatan sehingga pemanfaatannya harus dioptimalkan. Penelitian ini bertujuan untuk mengetahui adanya pengaruh variasi metode ekstraksi maserasi dan refluks terhadap banyaknya kadar flavonoid total yang dihasilkan ekstrak etanol 70% daun ketumbar (*Coriandrum sativum* L.) serta menentukan ekstraksi yang paling optimal dalam menghasilkan kadar flavonoid total. Penelitian ini dilakukan secara true experimental dimulai dengan determinasi tanaman, pengumpulan dan pembuatan simplisia, serta melakukan penetapan karakterisasi simplisia daun ketumbar. Ekstraksi dilakukan menggunakan metode maserasi dan refluks dengan pelarut etanol 70%. Hasil penelitian menunjukkan nilai rendemen ekstrak menggunakan metode maserasi sebesar 23,4569% sedangkan ekstrak dengan metode refluks sebesar 25,3384%. Skrining fitokimia menunjukkan bahwa ekstrak daun ketumbar mengandung senyawa golongan flavonoid, alkaloid, saponin dan tanin. Parameter validasi metode analisis dilakukan dengan menentukan nilai linearitas, LoD, LoQ, presisi dan akurasi. Nilai validitas dari parameter validasi metode analisis memperoleh hasil linearitas dengan nilai koefisien korelasi 0,9969, nilai LoD sebesar 0,0001 mg/L, nilai LoQ sebesar 0,0004 mg/L, presisi dengan nilai RSD sebesar  $0,2785 \pm 0,8034\%$ , serta hasil akurasi sebesar 100,2944%. Penetapan kadar flavonoid total dilakukan dengan metode alumunium klorida menggunakan spektrofotometer UV-Vis pada panjang gelombang maksimum 417 nm. Hasil penelitian menunjukkan bahwa ekstrak etanol daun ketumbar dengan metode maserasi memiliki kadar flavonoid total tertinggi sebesar 1,75% sedangkan dengan metode refluks sebesar 1,22%. Independent T-test menyatakan ada perbedaan signifikan antara data kadar flavonoid total hasil ekstrak metode maserasi dan refluks. Sehingga penggunaan variasi metode ekstraksi berpengaruh terhadap kadar flavonoid total ekstrak etanol 70% daun ketumbar (*Coriandrum sativum* L.).

**Kata kunci:** *Coriandrum sativum* L., maserasi, refluks, flavonoid total, *quercetin*, spektrofotometer UV-Vis

**THE EFFECTS OF VARIATIONS EXTRACTION METHODS ON TOTAL FLAVONOID CONTENT OF 70% ETHANOL EXTRACT CORIANDER LEAF (*Coriandrum sativum* L.)**

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*Coriander leaves is one of the plants that is widely used as a spice or food ingredient and can be developed as a drug. Coriander leaves contain secondary metabolites of flavonoids, alkaloids, saponins, tannins, glycosides and steroids. Flavonoid compounds have antioxidant properties that are beneficial for health, so their utilization must be optimized. The aims of study was to determine the effect of variations in maceration and reflux extraction methods on the total flavonoid content produced by 70% ethanol extract of coriander leaves (*Coriandrum sativum* L.). This research was conducted in a true experimental starting with plant determination, collecting and making simplicia, and determining the characterization of coriander leaves simplicia. Extraction was carried out using maceration and reflux method with 70% ethanol as solvent. The results showed that the yield value of the extract using the maceration method was 23.4569% while the extract using the reflux method was 25.3384%. Phytochemical screening showed that coriander leaf extract contained flavonoids, alkaloids, saponins and tannins. Parameter validation of the analytical method is done by determining the value of linearity, LoD, LoQ, precision and accuracy. The validity value of the validation parameters analytical method obtained linearity with a correlation coefficient of 0.9969, LoD value of 0.0001 mg/L, LoQ value of 0.0004 mg/L, precision with RSD value of 0.2785±0.8034%, and the accuracy value of 100.2944%. Determination of total flavonoid content was carried out by the aluminum chloride method using a UV-Vis spectrophotometer at a maximum wavelength of 417 nm. The results showed that the ethanol extract of coriander leaves using the maceration method had the highest total flavonoid content of 1.75% while the reflux method was 1.22%. The Independent T-test stated that there was a significant difference between the total flavonoid content data obtained from the maceration and reflux method extracts. So that the use of various extraction methods affects the total flavonoid content of the 70% ethanol extract of coriander leaves (*Coriandrum sativum* L.).*

**Keywords:** *Coriandrum sativum* L., maceration, reflux, total flavonoids, quercetin, UV-Vis spectrophotometer