Program Studi Farmasi, Fakultas Ilmu Kesehatan
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Antonia Nancy da Silva
050218A024

KAJIAN KANDUNGAN FLAVONOID MENGGUNAKAN SPEKTROFOTOMETRI UV-VIS DARI BERBAGAI EKSTRAK TANAMAN

ABSTRAK

Latar Belakang: Tanaman daun cengkeh, daun bawang dayak, daun kajajahi, daun piladang dan daun kanunang memiliki sejumlah senyawa metabolit sekunder. Salah satu senyawa metabolit sekunder yang akan diteliti dalam tanaman-tanaman tersebut yaitu flavonoid. Flavonoid adalah salah satu senyawa polifenol yang memiliki 15 atom karbon dalam inti dasarnya yang tersusun dalam konfigurasi C_6-C_3-C_6. Penelitian ini bertujuan untuk mengetahui kandungan kuantitatif flavonoid daun cengkeh (*Syzygium aromaticum* (L.), daun bawang dayak (*Eleutherine palmifolia* (L.), daun kepel (*Stelechocarpus burahol* (Bl.), daun kanunang (*Cordia myxa* (L.), dan daun piladang *(Solenostemon scutellarioides* (L). (*Eleutherine palmifolia* (L.), daun kepel (*Stelechocarpus burahol* (Bl.), daun kanunang (*Cordia myxa* (L.), dan daun piladang *(Solenostemon scutellarioides* (L).
Metode: Penelitian ini dilakukan dengan metode meta analisis berdasarkan review artikel. Penyusunan artikel menggunakan 5 artikel dan semua artikel sebagai artikel utama. Analisis untuk menentukan kandungan kuantitatif senyawa flavonoid pada ekstrak daun cengkeh, daun bawang dayak, daun kepel, daun kanunang dan fraksi daun piladang menggunakan metode spektrofotometri UV-Vis dengan baku pembanding rutin dan kuarsetin sehingga menghasilkan kandungan kuantitatif flavonoid yang berbeda pada setiap tanaman.
Hasil: Berdasarkan analisis menggunakan spektrofometri hasil uji kandungan kuantitatif flavonoid pada daun cengkeh sebesar 7,308 % QE, daun bawang dayak sebesar 2,20% QE, daun kepel sebesar 9,8 % QE, daun kanunang sebesar 1,202% QE dan daun piladang sebesar 1,678% QE.
Kesimpilan: Hasil uji kandungan kuantitatif flavonoid pada daun cengkeh sebesar 7,308 % RE, daun bawang dayak sebesar 2,20% QE, daun kepel sebesar 9,8 % RE, daun kanunang sebesar 1,202% QE dan daun piladang sebesar 1,678% QE. Kandungan kuantitatif flavonoid terbesar terdapat pada daun kepel 9,8 % QE (quarsetin equivalent) dengan menggunakan baku pembanding kuarsetin.

Kata Kunci: Flavonoid, Spektrofotometri UV-Vis, tanaman

Ngudi Waluyo University
Pharmacy Study Program, Faculty of Health Sciences
Thesis, August 2020
Antonia Nancy da Silva
050218A024

STUDY OF FLAVONOID CONTENT USING UV-VIS SPECTROPHOTOMETRY FROM VARIOUS CROP EXTRACTS

ABSTRACT

Background: Clove leaves, Dayak leeks, kajajahi leaves, piladang leaves and kanunang leaves have a number of secondary metabolite compounds. One of the secondary metabolite compounds that will be studied in these plants is flavonoids. Flavonoids are polyphenolic compounds that have 15 carbon atoms in their basic nucleus arranged in a C6-C3-C6 configuration. This study aims to determine the quantitative content of clove leaf flavonoids (Syzygium aromaticum (L.), Dayak leeks (Eleutherine palmifolia (L.), kepel leaves (Stelechocarpus burahol (Bl.), Kanunang leaves (Cordia myxa (L.), and piladang leaves (Solenostemon scutellarioides (L).

Methods: This study was conducted using a meta-analysis method based on review articles. Article preparation uses 5 articles and all articles as the main article. The analysis to determine the content of quantitative flavonoids in the extracts of clove leaves, Dayak leeks, kepel leaves, kanunang leaves and piladang leaf fractions used the UV-Vis spectrophotometric method with routine comparison standards and quarsetin to produce a different quantitative content of flavonoids in each plant.

Results: Based on the analysis using spectrophotometry, the quantitative content of flavonoids in clove leaves was 7.308% QE, dayak leeks were 2.20% QE, kepel leaves were 9.8% QE, kanunang leaves were 1.202% QE and piladang leaves were 1.678% QE.

Conclusion: The test results for the quantitative content of flavonoids in clove leaves were 7.308% RE, dayak leeks were 2.20% QE, kepel leaves were 9.8% RE, kanunang leaves were 1.202% QE and piladang leaves were 1.678% QE. The largest quantitative content of flavonoids was found in Kepel leaves 9.8% QE (equivalent to quartzetin) using the standard quartzetin.

Keywords: Plants, Flavonoids, UV-Vis Spectrophotometry