

ABSTRAK

PENETAPAN KADAR TOTAL FENOL DAN FLAVONOID DARI EKSTRAK METANOL DAUN RAMBUTAN (*Nephelium Lappaceum* L.) DENGAN METODE SPEKTROFOTOMETRI UV-VIS (Oleh Ikhza Yasyifa Rusyda; Pembimbing Norhayati dan Hafiz Ramadhan; 2024; 105 Halaman)

Tanaman Rambutan (*Nephelium lappaceum* L.) memiliki potensi sebagai alternatif pengobatan karena mengandung senyawa-senyawa yang disebut dengan metabolit sekunder. Senyawa yang tergolong dalam metabolit sekunder adalah fenol dan flavonoid yang berperan menghasilkan aktivitas farmakologi seperti antioksidan, antibakteri, antitrombosis, antivirus, antialergi, antikanker dan antiinflamasi. Penelitian ini bertujuan untuk mengetahui kandungan fenol dan flavonoid dan menetapkan kadar total fenol dan flavonoid dari ekstrak metanol daun Rambutan. Daun rambutan diekstraksi dengan metode sokletasi menggunakan pelarut metanol, kemudian dilakukan skrining fitokimia untuk mengetahui kandungan senyawa metabolit sekunder. Penetapan kadar total fenol menggunakan reagen Folin Ciocalteu dan kadar total flavonoid menggunakan reagen $AlCl_3$ yang pengukuran absorbansinya menggunakan metode Spektrofotometri UV-Vis. Hasil uji skrining fitokimia menunjukkan bahwa sampel diketahui positif mengandung senyawa fenol dan flavonoid. Hasil kadar fenol total yang didapat yaitu sebesar 2,5648 mg GAE/g ekstrak sedangkan kadar flavonoid total yaitu sebesar 4,4125 mg GAE/g ekstrak. Berdasarkan hasil penelitian dapat disimpulkan bahwa ekstrak metanol daun Rambutan mengandung senyawa metabolit sekunder berupa fenol dan flavonoid yang dapat berpotensi sebagai obat.

Kata kunci : Ekstrak Metanol, Kadar Fenolik Total, Kadar Flavonoid Total, Rambutan, Sokletasi

ABSTRACT

DETERMINATION OF TOTAL PHENOL AND FLAVONOID LEVELS OF RAMBUTAN LEAF METHANOL EXTRACT (*Nephelium Lappaceum* L.) BY UV-VIS SPECTROPHOTOMETRY METHOD (By Ikhza Yasyifa Rusyda; Advisor Norhayati and Hafiz Ramadhan; 2024; 105 Pages)

The rambutan plant (*Nephelium lappaceum* L.) has potential as an alternative treatment because it contains compounds called secondary metabolites. Compounds classified as secondary metabolites are phenols and flavonoids that play a role in producing pharmacological activities such as antioxidants, antibacterials, antithrombin, antiviral, antiallergic, anticancer, and anti-inflammatory. This study aims to determine the content of phenols and flavonoids and determine the total phenol and flavonoid levels of Rambutan leaf methanol extract. Rambutan leaves were extracted by the soxhlet method using methanol solvents, then phytochemical screening was carried out to determine the content of secondary metabolite compounds. Determination of total phenol levels using Folin Ciocalteu reagent and total flavonoid levels using $AlCl_3$ reagent which absorbance measurement using UV-Vis Spectrophotometry. The results of phytochemical screening tests showed that the samples were known to be positive for phenol and flavonoid compounds. The total phenol content obtained was 2.5648 mg GAE/g extract while the total flavonoid content was 4.4125 mg GAE/g extract. Based on the results of the study, it can be concluded that the methanol extract of Rambutan leaves contains secondary metabolite compounds in the form of phenols and flavonoids which can have potential as drugs.

Keywords: Methanol Extract, Total Phenolic Levels, Total Flavonoid Levels, Rambutan, Socleation