# Kadar Flavonoid Total dan Aktivitas Antitirosinase Ekstrak Etanol 70% Kulit Batang Litsea glutinosa dengan Metode Ultrasound-assisted Extraction dan Microwave-assisted Extraction = Total Flavonoid Content and Tyrosinase Inhibitory Activities from Litsea glutinosa Stem Bark Ethanolic 70% Extract with Ultrasound-assisted Extraction and Microwave-assisted Extraction

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Abstrak

Litsea glutinosa merupakan tanaman bermarga lauraceae yang tumbuh di Indonesia, dan diketahui telah digunakan dalam pengobatan tradisional sejak 600 tahun sebelum masehi. Tanaman ini dilaporkan memiliki kandungan metabolit sekunder yang tinggi yaitu alkaloid dan flavonoid, namun belum ada penelitian mengenai kadar flavonoid total, aktivitas antitirosinase, dan ekstraksi menggunkan perbandingan metode ekstraksi modern. Simplisia kulit batang L. glutinosa diekstraksi dengan menggunakan metode Ultrasound-assisted Extraction (UAE), dan Microwave-assisted Extraction (MAE). Penetapan Kadar Flavonoid Total dilakukan menggunakan metode kolorimetri AlCl3 dengan standar pembanding yaitu kuersetin. Uji aktivitas antitirosinase dilakukan dengan menggunakan L-DOPA (3,4-Dihidroksi-L-fenilalanin) sebagai substrat dan asam kojat sebagai kontrol positif. Total Kadar Flavonoid yang diperoleh dari ekstrak etanol kulit batang L.glutinosa dengan metode ekstraksi UAE dan MAE berturut-turut ialah sebesar sebesar 3,57 ± 0,0269 dan 3,06 ± 0,0269 mg EK/g ekstrak. Pada uji antitirosinase, ekstrak etanol kulit batang L. glutinosa dengan metode MAE memiliki nilai IC50 sebesar 1.707, 2 µg/mL dimana asam kojat sebagai kontrol positif memiliki nilai IC50 sebesar 5,75 µg/mL.

.....Litsea glutinosa is a plant surnamed Lauraceae that grows in Indonesia, and is known to have been used in traditional medicine since 600 BC. This plant is reported to have a high content of secondary metabolites, namely alkaloids and flavonoids, but there has been no research on total flavonoid content, antityrosinase activity, and extraction using comparisons of modern extraction methods. The stem bark simplicia of L. glutinosa was extracted using Ultrasound-assisted Extraction (UAE) and Microwave-assisted Extraction (MAE) methods. Determination of total flavonoid content was carried out using the AlCl3 colorimetric method with a standard of comparison, namely quercetin. Antityrosinase activity test was carried out using L-DOPA (3,4-Dihydroxy-L-phenylalanine) as a substrate and kojic acid as a positive control. The total flavonoid content obtained from the ethanolic extract of the stem bark of L.glutinosa by the UAE and MAE extraction methods was 3.57 ± 0.0269 and 3.06 ± 0.0269 mg EK/g extract, respectively. In the antityrosinase test, the ethanolic extract of the stem bark of L. glutinosa using the MAE method had an IC50 value of 1,707, 2 µg/mL where as kojic acid as a positive control had an IC50 value of 5.75 µg/mL.