

ABSTRAK

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SKRINING FITOKIMIA DAN UJI KADAR SENYAWA TOTAL FLAVONOID EKSTRAK ETANOL 70% BATANG YAKON (*Smallanthus sonchifolius* (Poepp.) H. Rob.)

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(XVII + 96 halaman; 6 tabel; 13 gambar; 22 lampiran)

Tumbuhan Yakon (*Smallanthus sonchifolius* (Poepp.) H. Rob) merupakan tanaman perdu yang berasal dari pegunungan Andes di negara Peru. Tanaman ini umumnya disebut sebagai “Tumbuhan Insulin” oleh masyarakat luas karena dipercaya dapat menurunkan kadar glukosa dalam darah, biasanya masyarakat memanfaatkan bagian daun dan batangnya. Namun, kandungan senyawa aktif pada Batang Yakon belum diketahui secara pasti, maka dari itu dilakukannya skrining fitokimia. Skrining Fitokimia merupakan tahap awal dalam sebuah penelitian terkait identifikasi senyawa. Tujuan dilakukannya penelitian ini untuk mengetahui senyawa metabolit sekunder dan penentuan kadar total senyawa flavonoid yang terkandung dalam batang Yakon. Metode penelitian menggunakan metode eksperimental laboratorium untuk skrining fitokimia dan penetapan kadar total senyawa flavonoid ekstrak etanol 70% batang Yakon yang diperoleh dengan metode maserasi. Kadar flavonoid ditentukan dengan metode spektrofotometri uv-vis. Analisis data yang diperoleh, diolah menggunakan persamaan regresi linear dengan program Microsoft Excel 2021. Hasil yang diperoleh pada ekstrak etanol 70% batang Yakon memiliki rendemen sebesar 11,29% dan kadar air sebesar 0,66% serta mengandung senyawa metabolit sekunder diantaranya alkaloid, fenol, flavonoid, saponin, tanin, dan triterpenoid. Analisis kadar senyawa flavonoid total didapatkan hasil kadar senyawa flavonoid total yaitu sebesar $84,125 \pm 0,38$ mgQE/g ekstrak dengan nilai koefisien variasi sebesar 0,4%.

Kata Kunci: Batang Yakon, Skrining Fitokimia, Flavonoid

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ABSTRACT

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PHYTOCHEMICAL SCREENING AND CONTENT OF TOTAL FLAVONOIDS TEST OF 70% ETHANOL EXTRACT OF YACON STEM (*Smallanthus sonchifolius* (Poepp.) H. Rob.)
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(XVII + 96 pages; 6 tables; 13 pictures; 22 appendices)

*The Yacon plant (*Smallanthus sonchifolius* (Poepp.) H. Rob) is an herbaceous plant originating from the Andes mountains in Peru. This plant is generally referred to as the "Insulin Plant" by the wider community because it is believed to reduce glucose levels in the blood. Usually, people use leaves and stems. However, the content of active compounds in Yacon stems is not known with certainty, therefore, a phytochemical screening was carried out. Phytochemical screening is the initial stage in research related to the discovery of compounds. The purpose of this study was to determine the secondary metabolite compounds and the total content of flavonoid compounds contained in Yacon stems. The research method used laboratory experimental methods for phytochemical screening and determination of the total levels of flavonoid compounds in a 70% ethanol extract of Yacon stems obtained by the maceration method. Flavonoid content was determined by the UV-Vis spectrophotometry method. The analysis of the data obtained was processed using a linear regression equation with the Microsoft Excel 2021 program. The results obtained from the 70% ethanol extract of Yacon stems had a yield of 11.29% and a water content of 0.66% and contained secondary metabolites including alkaloids, phenols, flavonoids, saponins, tannins, and triterpenoids. Analysis of total flavonoid compound levels showed that total flavonoid compound levels were $84,125 \pm 0,38$ mgQE/g extract with a coefficient of variation of 0.4%.*

Keywords: Yacon Stem, Phytochemical Screening, Flavonoid

References: 76 (1985 – 2022)