

## INTISARI

**PURNAMAWATI, S.N., 2018. ANALISIS VITAMIN C PADA DAUN SINGKONG MUDA SEGAR (*Manihot esculenta* Crantz) SECARA SPEKTROFOTOMETRI UV-Vis. KARYA TULIS ILMIAH. FAKULTAS FARMASI. UNIVERSITAS SETIA BUDI, SURAKARTA.**

Daun singkong merupakan salah satu jenis sayuran yang berkhasiat sebagai bahan obat tradisional dan salah satu sumber pangan. Daun singkong dikenal mengandung vitamin C. Vitamin C merupakan vitamin esensial yang dibutuhkan oleh tubuh. Penelitian ini bertujuan untuk memastikan adanya vitamin C pada daun singkong muda segar dan menetapkan kadar vitamin C nya secara spektrofotometri UV-Vis.

Penelitian ini diawali uji kualitatif dengan mereaksikan filtrat sampel daun singkong muda segar terhadap reagen iodium, FeCl<sub>3</sub>, Fehling A dan Fehling B, dilanjutkan uji kuantitatif dengan spektrofotometri UV-Vis. Panjang gelombang maksimal vitamin C diukur pada 240-280 nm dan *operating time* selama 15 menit. Kurva kalibrasi menggunakan lima konsentrasi larutan baku vitamin C yaitu 3,54 µg/ml; 4,72 µg/ml; 5,9 µg/ml; 7,08 µg/ml; 8,26 µg/ml. Parameter metode validasi dalam penelitian ini yaitu linieritas, LOD, LOQ, dan uji akurasi.

Hasil uji kualitatif menunjukkan sampel daun singkong muda segar mengandung vitamin C. Uji kuantitatif menghasilkan kadar vitamin C sampel daun singkong muda segar 0,318 % <sup>b</sup>/<sub>b</sub>.

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Kata kunci : Vitamin C, daun singkong muda segar, dan spektrofotometri UV-Vis

## ABSTRACT

**PURNAMAWATI, S.N., 2018. DETERMINATION OF VITAMIN C ON FRESH YOUNG CASSAVA LEAVES (*Manihot esculenta* Crantz) USING UV-Vis SPECTROPHOTOMETRY. SCIENTIFIC PAPERS. FACULTY OF PHARMACY. UNIVERSITY OF SETIA BUDI, SURAKARTA.**

Cassava leaves is one of vegetables that used as traditional medicine and one of the healthy food sources. Cassava leaves are known to contain Vitamin C which is an essential vitamin and important for body. Purpose of this research is to determine the availability of vitamin C on fresh young cassava leaves in UV-Vis spectrophotometry.

The research started with qualitative test by reacting sample of fresh young cassava leaves filtrate using iodium, FeCl<sub>3</sub>, Fehling A dan Fehling B reagent, then followed with spectrophotometry UV-Vis quantitative test. The maximum wavelength of Vitamin C measured at 240-280 nm in 15 minutes operating time. Calibration curve using five concentrations of standard solution of Vitamin C, they are 3,54 µg/ml; 4,72 µg/ml; 5,9 µg/ml; 7,08 µg/ml; 8,26 µg/ml. The parameters of validation method in this research are linearity, LOD, LOQ and accuracy test.

The result of qualitative test indicate that the specimen of fresh young cassava leaves have contents of vitamin C. The result of quantitative test of fresh young cassava leaves sample produced 0,318 % <sup>b</sup>/<sub>b</sub> level of vitamin C.

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Keywords: Vitamin C, fresh young cassava leaves and UV-Vis spectrophotometry