

# PENGARUH KONSENTRASI ETANOL TERHADAP KADAR FLAVONOID TOTAL EKSTRAK DAUN SAMBUNG NYAWA (*Gynura procumbens* (Lour.) Merr)

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## INTISARI

**Latar Belakang:** Daun sambung nyawa (*Gynura procumbens* (Lour.) Merr). mengandung senyawa flavonoid yang berperan sebagai antioksidan. Senyawa flavonoid pada daun sambung nyawa dapat diperoleh melalui proses ekstraksi. Keberhasilan ekstraksi senyawa salah satunya dipengaruhi oleh konsentrasi pelarut.

**Tujuan Penelitian:** Mengetahui pengaruh perbedaan konsentrasi pelarut etanol terhadap kadar flavonoid total ekstrak daun sambung nyawa.

**Metode Penelitian:** Serbuk daun sambung nyawa diekstraksi dengan metode UAE menggunakan pelarut etanol 70% dan etanol 96% (1:10). Ekstrak yang dihasilkan kemudian dilakukan uji organoleptis, uji kadar air, skrining fitokimia, uji KLT menggunakan fase gerak n-heksan : etil asetat : asam format (6:4:0,2), dan penetapan kadar flavonoid total menggunakan spektrofotometri UV-Vis dengan standar kuersetin. Kadar flavonoid total dinyatakan dalam satuan mg QE/g.

**Hasil Penelitian:** Pengujian organoleptis diperoleh warna coklat, tekstur kental, dan bau khas daun sambung nyawa. Kadar air pada ekstrak etanol 70% diperoleh sebesar 2,64% dan ekstrak etanol 96% sebesar 2,18%. Ekstrak daun sambung nyawa positif mengandung flavonoid, alkaloid, saponin, tanin, fenolik, dan terpenoid. Profil KLT didapatkan nilai *R<sub>f</sub>* sampel sebesar 0,487 yang mendekati nilai *R<sub>f</sub>* standar kuersetin 0,475. Pada analisis kadar flavonoid total ekstrak etanol 70% diperoleh hasil 40,67±0,459 mg QE/g, dan ekstrak etanol 96% diperoleh hasil 33,475±0,555 mg QE/g.

**Kesimpulan:** Perbedaan konsentrasi pelarut ekstraksi etanol 70% dan etanol 96% berpengaruh signifikan terhadap kadar flavonoid total ekstrak daun sambung nyawa. Ekstraksi dengan pelarut etanol 70% menghasilkan kadar flavonoid total yang lebih tinggi dibandingkan dengan pelarut 96%.

**Kata Kunci:** Etanol 70%, Etanol 96%, Flavonoid, *Gynura procumbens* (Lour.) Merr, UAE.

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# THE EFFECT OF ETHANOL CONCENTRATION ON THE TOTAL FLAVONOID CONTENT OF *Gynura procumbens* (Lour.) Merr LEAF EXTRACT

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## ABSTRACT

**Background:** *Gynura procumbens* (Lour.) Merr contain flavonoid compounds that act as antioxidants. Flavonoid *Gynura procumbens* (Lour.) Merr leaves can be obtained through an extraction. The success of the extraction is influenced by the concentration of the extraction solvent.

**Research Objective:** To determine the effect of differences in ethanol solvent concentration on the total flavonoid content of the extract of *Gynura procumbens* (Lour.) Merr leaves.

**Research Methode:** The powder of *Gynura procumbens* (Lour.) Merr leaves was extracted using the UAE method using 70% ethanol and 96% ethanol solvents (1:10). The resulting extract was then subjected to organoleptic tests, water content tests, phytochemical screening, TLC tests using n-heksan : ethyl acetate : formic acid (6:4:0,2) as the mobile phase, and determination of total flavonoid content using UV-Vis spectrophotometry with quercetin as the standard. Total flavonoid content are expressed in units of mg QE/g.

**Reasearch Result:** Organoleptic testing obtained a brown color, thick texture, and distinctive odor of *Gynura procumbens* (Lour.) Merr. The water content of 70% ethanol extract was 2,64% and 96% ethanol extract was 2,18%. The *Gynura procumbens* (Lour.) Merr leaf extract positively contained flavonoids, alkaloids, saponins, tanins, phenolics, and terpenoids. The TLC profile obtained a sample *Rf* value of 0,487 which is close to the standard *Rf* value of quercetin 0,475. In the analysis of total flavonoid content of 70% ethanol extract obtained a results of 40,67±0,459 mgQE/g, and 96% ethanol extract obtained a results of 33,475±0,555 mg QE/g.

**Conclusion:** The difference in extraction solvent concentration between 70% and 96% ethanol significantly affected the total flavonoid content of the *Gynura procumbens* (Lour.) Merr leaf extract. Extraction with 70% ethanol resulted in higher total flavonoid content compared to 96% ethanol.

**Keywords:** *Ethanol 70%, Ethanol 96%, Flavonoids, Gynura procumbens* (Lour.) Merr, UAE.

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