

## ABSTRAK

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Judul : Pengaruh Variasi Pelarut Terhadap Total Fenolik Dan Flavonoid Serta Aktivitas Antioksidan Pada Daun Kecibeling (*Strobilanthes crispus*) Dengan Metode ABTS

Tanaman kecibeling merupakan tanaman herbal Indonesia yang telah diketahui sebagai aktivitas antioksidan dan telah dikembangkan menjadi beberapa macam pengobatan seperti batu ginjal, batu empedu, diabetes, kolesterol, serta tumor. Penelitian ini bertujuan untuk mengetahui metabolit sekunder apa saja yang terkandung, serta untuk mengetahui adanya aktivitas antioksidan, kadar fenolik dan flavonoid total ekstrak daun kecibeling (*Strobilanthes crispus*). Ekstraksi daun kecibeling menggunakan metode ekstraksi maserasi dengan pelarut etanol 96 %, etil asetat, dan n-heksan. Ekstrak etanol 96 %, etil asetat, dan n-heksan ditetapkan kadar fenolik dan flavonoid total serta diuji aktivitas antioksidannya dengan metode ABTS. Penetapan kadar fenolik diuji dengan pembanding asam galat dan pembanding kuersetin untuk penetapan kadar flavonoid. Aktivitas antioksidan menggunakan metode ABTS (2,2 Azinobis 3 Ethylbenzothiazolin 6 Sulfonic Acid) dengan pembanding vitamin C. Data yang diperoleh berupa metabolit sekunder daun kecibeling, kadar fenolik total, kadar flavonoid total, dan nilai aktivitas antioksidan ekstrak etanol 96 %, etil asetat, dan n-heksan. Metabolit sekunder yang terkandung pada daun kecibeling yaitu alkaloid, flavonoid, fenol, tanin, dan terpenoid. Ekstrak etanol, etil asetat dan n-heksan daun kecibeling rata-rata kadar total flavonoid berturut-turut sebesar 60,67 mgQE/g ekstrak, 67,42 mgQE/g ekstrak dan 111,53 mgQE/g ekstrak. Kemudian pada kadar total fenolik berturut-turut sebesar 10,73 mgGAE/g ekstrak, 12,27 mgGAE/g ekstrak dan 21,10 mg GAE/g ekstrak. Nilai  $IC_{50}$  yang dihasilkan ekstrak etanol, etil asetat dan n-heksan daun kecibeling berturut-turut sebesar 3,994 bpj, 7,130 bpj dan 10,147 bpj.

Kata Kunci: ABTS, Antioksidan, Fenolik, Flavonoid, Kecibeling

## ABSTRACT

Name : Tika Dwi Yolanda  
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Title : The Effect of Solvent Variations on Total Phenolics and Flavonoids and Antioxidant Activities in Kecibeling Leaves (*Strobilanthes crispus*) Using the ABTS Method

Kecibeling plant is an Indonesian herbal plant that has been known as an antioxidant activity and has been developed into several kinds of treatment such as kidney stones, gallstones, diabetes, cholesterol, and tumors. This study aims to determine what secondary metabolites are contained, as well as to determine the presence of antioxidant activity, total phenolic and flavonoid of kecibeling leaves (*Strobilanthes crispus*). Kecibeling leaf extraction used maceration extraction method with 96% ethanol, ethyl acetate, and n-hexane as solvents. Extracts of 96% ethanol, ethyl acetate, and n-hexane were determined for total phenolic and flavonoid content and tested for their antioxidant activity using the ABTS method. Determination of phenolic content was tested with a comparison of gallic acid and quercetin as a comparison for the determination of flavonoid levels. Antioxidant activity using the ABTS method (2,2 Azinobis 3 Ethylbenzothiazolin 6 Sulfonic Acid) with comparison of vitamin C. The data obtained were secondary metabolites of kecibeling leaf, total phenolic content, total flavonoid content, and antioxidant activity values of 96% ethanol extract, ethyl acetate, and n-hexane. Secondary metabolites contained in kecibeling leaves are alkaloids, flavonoids, phenols, tannins, and terpenoids. The ethanol extract, ethyl acetate and n-hexane of kecibeling leaf produced an average total flavonoid content of 60,67 mgQE/g extract, 67,42 mgQE/g extract and 111,53 mgQE/g extract, respectively. Then the total phenolic content was 10,73 mgGAE/g extract, 12,27 mgGAE/g extract and 21,10 mg GAE/g extract, respectively. The IC<sub>50</sub> values produced by the extract of ethanol, ethyl acetate and n-hexane of kecibeling leaves were 3,994 ppm, 7,130 ppm and 10,147 ppm, respectively.

Keywords: *ABTS, Antioxidant, Phenolic, Flavonoid, Kecibeling*