

AKTIVITAS ANTIOKSIDAN EKSTRAK ETANOL DAUN BANDOTAN (*Ageratum conyzoides* L.) DENGAN METODE FRAP (*Ferric Reducing Antioxidant Power*)

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ABSTRAK

Daun Bandotan (*Ageratum conyzoides* L.) merupakan salah satu tumbuhan obat yang diketahui mengandung senyawa metabolit sekunder seperti flavonoid dan fenolik yang berperan sebagai antioksidan. Penelitian ini bertujuan untuk mengetahui kadar fenol total, flavonoid total, serta aktivitas antioksidan ekstrak etanol daun Bandotan dengan metode FRAP (*Ferric Reducing Antioxidant Power*). Simplisia daun Bandotan diekstraksi menggunakan metode maserasi dengan pelarut etanol 96%. Kadar fenol total ditetapkan menggunakan metode Folin-Ciocalteu dengan standar asam galat, sedangkan kadar flavonoid total menggunakan metode aluminium klorida dengan standar kuersetin. Aktivitas antioksidan ditentukan dengan metode FRAP menggunakan kuersetin sebagai pembanding. Hasil penelitian menunjukkan bahwa kadar fenol total ekstrak sebesar 56.00 mg GAE/g ekstrak, kadar flavonoid total sebesar 0.587 mg QE/g ekstrak, dan nilai aktivitas antioksidan (FRAP) sebesar 160 μ mol Fe(II)/g ekstrak. Berdasarkan hasil tersebut, ekstrak etanol daun Bandotan memiliki kandungan senyawa fenolik yang cukup tinggi dibandingkan senyawa flavonoid serta menunjukkan aktivitas antioksidan yang potensial.

Kata Kunci: Daun Bandotan (*Ageratum conyzoides* L.), Fenol Total, Flavonoid Total, Antioksidan, FRAP.

ANTIOXIDANT ACTIVITY OF ETHANOL EXTRACT FROM BANDOTAN (*Ageratum conyzoides* L) USING FRAP (*Ferric Reducing Antioxidant Power*) METHOD

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ABSTRACT

*Bandotan leaves (*Ageratum conyzoides* L.) are one of the medicinal plants known to contain secondary metabolites such as flavonoids and phenolics that act as antioxidants. This study aims to determine the total phenol content, total flavonoid content, and antioxidant activity of Bandotan leaf ethanol extract using the FRAP (*Ferric Reducing Antioxidant Power*) method. Bandotan leaf simplisia was extracted using the maceration method with 96% ethanol solvent. Total phenol content was determined using the Folin-Ciocalteu method with gallic acid standard, while total flavonoid content was determined using the aluminum chloride method with quercetin standard. Antioxidant activity was determined using the FRAP method with quercetin as a reference. The results showed that the total phenolic content of the extract was 56.00 mg GAE/g extract, the total flavonoid content was 0.587 mg QE/g extract, and the antioxidant activity (FRAP) value was 160 μ mol Fe(II)/g extract. Based on these results, Bandotan leaf ethanol extract has a relatively high content of phenolic compounds compared to flavonoids and exhibits potential antioxidant activity.*

Keywords: *Ageratum conyzoides* L., Total Phenolic, Total Flavonoid, Antioxidant, FRAP.

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