

Abstrak

KADAR FENOL TOTAL EKSTRAK ETANOL JANTUNG PISANG RAJA (*Musa x paradisiaca L.*) SEBAGAI AGEN PENANGKAP RADIKAL BEBAS DPPH

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Latar Belakang: Ekstrak etanolik jantung pisang raja (*Musa x paradisiaca L.*) telah terbukti memiliki aktivitas antioksidan. Ekstrak etanol jantung pisang raja diketahui mengandung senyawa fenolik, tanin, terpenoid dan flavonoid. Penelitian ini bertujuan untuk mengetahui kadar fenol total di dalam ekstrak etanol jantung pisang raja dan aktivitas antioksidan dengan melihat persentase penangkapan radikal bebas dan nilai IC₅₀.

Metodologi: Penelitian eksperimental laboratorium dianalisis secara kuantitatif. Uji penentuan kadar fenol total dilakukan dengan metode *Follin-ciocalteu* dengan standar asam galat. Penelitian ini menggunakan jantung pisang raja untuk mengetahui kadar fenol total menggunakan persamaan ekuivalen asam galat (GAE) dan potensi antioksidan dengan persentase penangkapan radikal bebas dan nilai IC₅₀. Data persentase penangkapan radikal bebas dihitung menggunakan data absorbansi spektrofotometri dan nilai IC₅₀ dianalisis menggunakan persamaan regresi linear.

Hasil Penelitian: Hasil penelitian menunjukkan bahwa ekstrak etanol jantung pisang raja memiliki kadar fenol total sebesar 18,553 mg GAE/g. Aktivitas antioksidan jantung pisang raja yaitu dengan nilai IC₅₀ sebesar 98,845 ppm.

Kesimpulan: Jantung pisang raja memiliki senyawa fenol total dan berpotensi sebagai antioksidan alami. Jantung pisang raja memiliki aktivitas antioksidan yang kuat.

Kata Kunci: *Musa x paradisiaca L.*, Fenol Total, Antioksidan

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Abstract

TOTAL PHENOL CONTENT OF ETHANOL EXTRACT PLANTAIN FLOWER (*Musa x paradisiaca L.*) AS A DPPH FREE RADICAL SCAVENGER

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Background: The ethanolic extract of plantain (*Musa x paradisiaca L.*) has been shown to have antioxidant activity. The ethanol extract of plantain flower is known to contain phenolic compounds, tannins, terpenoids and flavonoids. This study aims to determine the total phenol content in the ethanol extract of plantain flower and its antioxidant activity by looking at the percentage of free radical scavenging and the IC₅₀.

Methods: Laboratory experimental studies were analyzed quantitatively. The total phenol level determination test was carried out by the *Follin-ciocalteu* method with gallic acid standard. This study used the banana flower to determine the total phenol content (TPC) using the gallic acid equivalent (GAE) equation and the potential for antioxidants with the percentage of free radical scavenging and the IC₅₀ value. The percentage of free radical scavenging data was calculated using absorbance spectrophotometric data and the IC₅₀ value was analyzed using linear regression equations.

Results: The results showed that the ethanol extract of banana flower (*Musa x paradisiaca L.*) had a total phenol content (TPC) of 18.553 mg GAE/g. The antioxidant activity of banana flower (*Musa x paradisiaca L.*) with IC₅₀ value 98.845 ppm. **Conclusion:** banana flower (*Musa x paradisiaca L.*) has total phenolic compounds and has the potential as antioxidants. banana flower (*Musa x paradisiaca L.*) has strong antioxidant activity.

Keywords: *Musa x paradisiaca L.*, Total Phenolic, Antioxidants

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