

AKTIVITAS ANTIOKSIDAN EKSTRAK DAUN JERUK YANG TUMBUH DI KABUPATEN GARUT DENGAN METODE DPPH (2,2-diphenyl-1-picrylhydrazyl)

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Abstrak

Latar belakang dan tujuan : Komponen antioksidan terdapat di alam secara melimpah, salah satunya terkandung dalam daun jeruk. Penelitian ini bertujuan untuk menentukan kadar fenol total, dan flavonoid total serta aktivitas antioksidan dalam berbagai macam daun jeruk yang tumbuh di Kabupaten Garut. **Metode:** Kandungan fenol dan flavonoid total ditentukan secara spektrofotometri menggunakan reagen Folin Ciocalteu dan $AlCl_3$, hasil dinyatakan dalam ekuivalen asam galat (mg GAE/g ekstrak) dan ekuivalen kuersetin (mgQE/g ekstrak). Uji aktivitas antioksidan menggunakan metode DPPH (2,2-diphenyl-1-picrylhydrazyl). **Hasil:** penetapan kadar fenol total ekstrak etanol daun jeruk siam 32,067 mg GAE/g ekstrak, ekstrak etanol daun jeruk limau 32,317 mg GAE/g ekstrak dan ekstrak etanol daun jeruk keprok Garut 37,35 mg GAE/g ekstrak. penetapan kadar flavonoid total ekstrak etanol daun jeruk siam 6,960 mg QE/g ekstrak, ekstrak etanol daun jeruk limau 4,117 mg QE/g ekstrak dan ekstrak etanol daun jeruk keprok 5,817 mg QE/g ekstrak. Pengujian aktivitas antioksidan ekstrak etanol daun jeruk siam memiliki aktivitas antioksidan tertinggi dengan nilai IC_{50} 127,1 mg/L, diikuti oleh ekstrak etanol daun jeruk limau dan ekstrak etanol daun jeruk keprok dengan nilai IC_{50} masing-masing 207,963mg/L dan 263,838mg/L. **Kesimpulan:** aktivitas antioksidan tertinggi dari tiga spesies daun jeruk (siam, keprok, limau) yang berasal dari kabupaten Garut dimiliki oleh daun jeruk siam.

Kata Kunci: Daun Jeruk, Fenolat Total, Flavonoid Total, Antioksidan

ANTIOXIDANT ACTIVITY from CITRUS LEAVES EXTRACT GROWN in GARUT USING DPPH (2,2-diphenyl-1-picrylhydrazyl) METHOD

Abstract

Background and aims: Antioxidant components are in abundant in nature, one of contained in citrus leaves. This present study was conduct to investigate the antioxidant activity and determine the total phenol and flavonoid content of various leaves citrus in Garut. **Method:** Total phenol and flavonoid content were measured by Folin Ciocalteu and $AlCl_3$ reagents respectively, which results were expressed in gallic acid equivalent (mg of GAE/g of extract) and quersetin equivalent (mg ofQE/g of sample). Antioxidant activity was carried out by DPPH(2,2-diphenyl- 1-picrylhydrazyl) method. **Result:** The result of estimation of total phenolcontent citrus leaves ethanol extract of siam is 32,067 GAE/g of extract, citrus leaves ethanol extract of limau is 32,317 GAE/g of extract and citrus leaves ethanol extract of keprok Garut is 37,35 mg GAE/g of extract. The result of estimation of total flavonoid content citrus leaves ethanol extract of siam is 6,960 mg QE/g extract, citrus leaves ethanol extract of limau is 4,117 mg QE/g extract and citrus leaves ethanol extract of keprok Garut is 5,817 mg QE/g extract. The result showed that citrus leaves ethanol extract of siam gave the highest antioxidant activity with IC_{50} value is 127,1 mg/L, followed by citrus leaves ethanol extract of limau and citrus leaves ethanol extract of keprok Garut with IC_{50} is value 207,963 mg/L and 263,838 mg/L.

Key Words: Citrus Leaves, Total Phenolic Content, Total Flavonoid Content, Antioxidant Activity