

ABSTRAK

Refi Artika, NIM 4201210007 (2024). Uji Aktivitas Antioksidan Ekstrak Daun Sirih Merah (*Piper crocatum*) dan Daun Sirih Hitam (*Piper betle var nigra*) dengan Metode DPPH.

Daun sirih (*Piper betle L.*) termasuk kedalam produk pertanian terpenting di dunia, karena kebutuhan daun sirih sebagai bahan baku obat tradisional dalam dasa warsa terakhir mengalami peningkatan. Daun sirih diketahui mengandung senyawa fenolik yang berpotensi sebagai antioksidan. Penelitian ini bertujuan untuk mengetahui aktivitas antioksidan ekstrak daun sirih merah (*piper crocatum*) dan daun sirih hitam (*piper betle var nigra*) dengan metode DPPH (2,2-difenil-1-pikrihidrazil). Serbuk simplisia daun sirih merah dan daun sirih hitam diekstraksi dengan metode maserasi menggunakan etanol 96%. Ekstrak etanolitk daun sirih kemudian dibuat dengan seri konsentrasi 10, 20, 40, dan 80 µg/mL. Sebagai pembanding digunakan vitamin C dengan konsentrasi 1, 2, 4, dan 8 µg/mL. Sebagai blanko digunakan DPPH 0,1 Mm. Hasil penelitian menunjukkan bahwa antioksidan aktivitas ekstrak etanol daun sirih merah IC_{50} sebesar 45,92 µg/mL, ekstrak etanol daun sirih hitam diperoleh nilai IC_{50} sebesar 87,09 µg/mL, dan pembanding vitamin C diperoleh nilai IC_{50} 4,11. Ekstrak daun sirih merah memiliki aktivitas antioksidan lebih tinggi dibandingkan ekstrak daun sirih hitam.

Kata Kunci: Daun sirih (*piper betle L.*), antioksidan, DPPH

ABSTRACT

Refi Artika, NIM 4201210007 (2024). Antioxidant Activity Test Of Red Belt Leaf Extract (*Piper crocatum*) And Black Belt Leaf (*Piper betle var nigra*) Using The DPPH Method.

Betel leaves (*Piper betle* L.) are among the most important agricultural products in the world, because the need for betel leaves as a raw material for traditional medicine has increased in the last decade. Betel leaves are known to contain phenolic compounds which have the potential to act as antioxidants. This study aims to determine the antioxidant activity of extracts of red betel leaves (*piper crocatum*) and black betel leaves (*piper betle var nigra*) using the DPPH (2,2-diphenyl-1-picrihydrazyl) method. Red betel leaf and black betel leaf simplicia powder were extracted using the maceration method using 96% ethanol. Ethanolite extract of betel leaves was then made with a concentration series of 10, 20, 40, and 80 µg/mL. As a comparison, vitamin C was used with concentrations of 1, 2, 4, and 8 µg/mL. As a blank, DPPH 0.1 Mm was used. The research results showed that the antioxidant activity of the ethanol extract of red betel leaves, IC₅₀, was 45.92 µg/mL, the ethanol extract of black betel leaves obtained an IC₅₀ value of 87.09 µg/mL, and the vitamin C comparison obtained an IC₅₀ value of 4.11. Red betel leaf extract has higher antioxidant activity than black betel leaf extract.

Keywords: betel leaf (*piper betle* L.), antioxidant, DPPH