

## INTISARI

**KHAMIDAH, NUR., 2016, UJI AKTIVITAS ANTIOKSIDAN FRAKSI *n*-HEKSANA, FRAKSI ETIL ASETAT, DAN FRAKSI AIR EKSTRAK ETANOL DAUN WARU (*Hibiscus tiliaceus* L.) SERTA PENETAPAN KADAR FLAVONOID TOTAL, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.**

Antioksidan adalah senyawa yang mampu menghilangkan efek radikal bebas. Radikal bebas merupakan molekul yang mengandung satu atau lebih elektron yang tidak berpasangan dan sangat reaktif. Daun waru mengandung saponin, polifenol dan flavonoid yang dapat digunakan sebagai antioksidan. Penelitian ini bertujuan untuk mengetahui aktivitas antioksidan fraksi *n*-heksana, etil asetat, air serta ekstrak etanol daun waru, untuk mengetahui aktivitas antioksidan paling besar diantara fraksi *n*-heksana, etil asetat, air serta ekstrak etanol daun waru, dan untuk mengetahui kadar flavonoid total dari fraksi yang mempunyai aktivitas antioksidan paling besar.

Daun waru (*Hibiscus tiliaceus* L.) diekstraksi menggunakan metode maserasi dengan etanol 96% dilanjutkan fraksinasi menggunakan pelarut *n*-heksana dan etil asetat. Uji aktivitas antioksidan terhadap radikal DPPH dilakukan terhadap fraksi *n*-heksana, etil asetat, air, serta ekstrak etanol daun waru. Penentuan kadar flavonoid total dilakukan pada fraksi etil asetat.

Hasil penelitian uji aktivitas antioksidan yang dinyatakan dengan nilai IC<sub>50</sub> pada fraksi *n*-heksana, etil asetat, air, dan ekstrak etanol daun waru berturut-turut yaitu: 483,8290 ppm, 152,9438 ppm, 363,0339 ppm dan 257,8545 ppm. Aktivitas antioksidan paling besar yaitu fraksi etil asetat. Hasil penentuan flavonoid total pada fraksi etil asetat yaitu sebesar 25,3671 %.

Kata kunci : daun waru, antioksidan, fraksi *n*-heksana, fraksi etil asetat, fraksi air, ekstrak etanol, flavonoid total

## ABSTRACT

**KHAMIDAH, NUR., 2016 TEST OF ANTIOXIDANT ACTIVITY *n*-HEXANE FRACTION, ETHYL ACETATE FRACTION, AND WATER FRACTION ETHANOL EXTRACT OF WARU (*Hibiscus tiliaceus* L.) LEAF AND DETERMINATION OF TOTAL FLAVONOID LEVELS, THESIS, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.**

Antioxidants are compounds which capable to remove the effects of free radicals. Free radicals are molecule that contain one or more unpaired electrons and highly reactive. Waru leaf contains saponin, polyphenol and flavonoid that can be used as an antioxidant. This study was aimed to determine the antioxidant activity of *n*-hexane, ethyl acetate and water fractions as well as ethanol extract of waru leaf, to determine the greatest antioxidant activity between *n*-hexane, ethyl acetate and water fractions as well as ethanol extract waru leaf, and to determine total flavonoid levels of fraction that has greatest antioxidant activity.

Waru leaf (*Hibiscus tiliaceus* L.) was extracted using maceration method with ethanol 96%, followed by fractionation using *n*-hexane, and ethyl acetate solvents. Test of antioxidant activity to DPPH radical was done to *n*-hexane, ethyl acetate, water fractions as well as ethanol extract of waru leaf. Determination of total flavonoid levels was done to ethyl acetate fraction.

The test results of antioxidant activity which expressed by IC<sub>50</sub> value to the *n*-hexane, ethyl acetate, water fractions and ethanol extract of waru leaf were ppm 483.8290, 152.9438 ppm, 363,0339 ppm and 257.8545 ppm, respectively. The greatest antioxidant activity was ethyl acetate fraction. The results of total flavonoids determination in ethyl acetate fraction was 25.3671 %.

Keywords: waru leaf, antioxidant, *n*-hexane fraction, ethyl acetate fraction, water fraction, ethanol extract, total flavonoid