

INTISARI

Trembesi (*Samanea saman* (Jacq.) Merr.) adalah salah satu jenis dari famili *Fabaceae* yang banyak ditemukan tumbuh di daerah tropis. Tujuan penelitian ini adalah menentukan kadar senyawa fenolik total dan aktivitas antioksidan fraksi air ekstrak etanol biji trembesi. Ekstrak tanaman diperoleh dengan metode maserasi menggunakan etanol 70%. Ekstrak selanjutnya difraksinasi dengan cara ekstraksi cair-cair sehingga menghasilkan fraksi air. Kadar fenolik total ditetapkan menggunakan metode spektrofotometri visibel dengan pereaksi Folin-Ciocalteu. Penentuan fenolik total menunjukkan jumlah senyawa fenolik yang mempengaruhi aktivitas antioksidan yang dinyatakan dengan nilai massa ekuivalen asam galat per massa fraksi (mg ekuivalen asam galat per g fraksi air ekstrak etanol). Pengujian aktivitas antioksidan dilakukan dengan metode DPPH (1,1-difenil-2-pikrilhidrazil) berdasarkan nilai IC_{50} nya. Hasil penelitian menunjukkan bahwa kandungan fenolik total fraksi air ekstrak etanolik biji trembesi adalah $44,67 \pm 0,53$ mg ekuivalen asam galat per gram fraksi air ekstrak etanolik biji trembesi. Nilai IC_{50} rutin adalah $19,05 \pm 0,23$ μ g/mL dan IC_{50} fraksi air ekstrak etanolik adalah $411,9 \pm 13,02$ μ g/mL.

Kata Kunci : kandungan fenolik total, antioksidan, DPPH, IC_{50} , biji trembesi (*Samanea saman* (Jacq.) Merr.).

ABSTRACT

Rain tree (*Samanea saman* (Jacq.) Merr) is a member of Fabaceae family which is found in the tropics. The purpose of this study was to determine total phenolic compounds and antioxidant activity of the water fraction from rain tree seeds ethanol extract. The plant extract with maceration method using 70% ethanol, then the extract was fractionated by liquid-liquid extraction to obtain water fraction. Total phenol level was determined using visible spectrophotometry with Folin-Ciocalteu reagent. Determination of total phenol was showed total phenolic compound which is affected antioxidant activity. It was showed by gallic acid equivalent per mass fraction (mg gallic acid equivalents per g of ethanol extracts water fraction). The determination of antioxidant activity described use DPPH method based on the value of IC_{50} . The result showed that total phenolic which is contained in the water fraction from ethanolic extracts of rain tree seeds was 42.93 ± 4.21 mg gallic acid equivalents per gram water fraction from ethanolic extract of rain tree seeds. The IC_{50} value of rutin was 19.05 ± 0.23 $\mu\text{g/mL}$ and the IC_{50} value of the water fraction from rain tree seeds ethanol extract was 411.9 ± 13.02 $\mu\text{g/mL}$.

Keywords : The total phenolic content, antioxidant, DPPH, IC_{50} , rain tree seeds (*Samanea saman* (Jacq.) Merr.).