

ABSTRAK

Indonesia dengan sumber daya alam yang melimpah. Penggunaan obat herbal di Indonesia telah menjadi kebiasaan tradisi secara turun temurun. *Garcinia*, telah banyak didapatkan senyawa aktif sebagai antifungal, antimikrobial, antioksidan, antimalaria, antiinflamasi dan anti HIV. Salah satu spesies *Garcinia* adalah *G.tetrandra Pierre*. Denaturasi protein merupakan proses di mana protein kehilangan struktur tiga dimensi alaminy, yang sering kali menyebabkan hilangnya fungsi biologisnya. Obat antiinflamasi golongan steroid (AIS) dan non steroid (AINS) mempunyai efek samping yang berbahaya, untuk ini diperlukan pengobatan alternatif dengan obat herbal. Metode penelitian yang digunakan adalah eksperimental ilmiah dengan uji fitokimia, uji Total Phenolic Content (TPC), Total Flavonoid Content (TFC) dan *Bovine Serum Albumin* (BSA) denaturasi protein dengan sampel ekstrak etil asetat kulit buah *Garcinia tetrandra Pierre*. Hasil uji fitokimia ekstrak kulit buah *Garcinia tetrandra Pierre* diperoleh hasil positif pada uji alkaloid, flavonoid, tanin, saponin dan trepenoid, TPC 12,456 mg GAE/g, TFC 154,380mg QE/g, %inhibisi denaturasi protein standar 100µg/mL 42%, 200µg/mL 84%, 300µg/mL 85%, 400µg/mL 96%, 500µg/mL 99%, IC₅₀ 52,38µg/mL dan pada sampel ekstrak 100µg/mL 52%, 200µg/mL 55%, 300µg/mL 65%, 400µg/mL 90%, 500µg/mL 94%. Hasil yang didapatkan fraksi etil asetat dari kulit buah *Garcinia tetrandra Pierre* telah berhasil menunjukkan aktivitas antiinflamasi %inhibisi melebihi 20% dan diperoleh hasil IC₅₀ 121,85µg/mL . Temuan aktivitas antiinflamasi dari fraksi etil asetat kulit buah *Garcinia tetrandra Pierre* dalam penelitian in-vitro memberikan indikasi kuat akan potensi kandidatnya dalam pengembangan obat antiinflamasi.

Kata Kunci : *Garcinia tetrandra Pierre*, fitokimia, TPC, TFC, BSA

ABSTRACT

Indonesia with abundant natural resources. The use of herbal medicine in Indonesia has been a traditional habit for generations. *Garcinia*, has many active compounds as antifungal, antimicrobial, antioxidant, antimalarial, anti-inflammatory and anti-HIV. One of the *Garcinia* species is *G.tetrandra* Pierre. Protein denaturation is a process in which proteins lose their natural three-dimensional structure, often leading to the loss of their biological function. Steroidal (AIS) and non-steroidal (AINS) anti-inflammatory drugs have dangerous side effects, for this alternative treatment with herbal medicines is needed. The research method used is scientific experimental with phytochemical tests, Total Phenolic Content (TPC), Total Flavonoid Content (TFC) and Bovine Serum Albumin (BSA) protein denaturation tests with samples of ethyl acetate extract of *Garcinia tetrandra* Pierre fruit peel. Phytochemical test results of *Garcinia tetrandra* Pierre fruit peel extract obtained positive results in the test of alkaloids, flavonoids, tannins, saponins and trepenoids, TPC 12.456 mg GAE/g, TFC 154.380mg QE/g, %inhibition of standard protein denaturation 100µg/mL 42%, 200µg/mL 84%, 300µg/mL 85%, 400µg/mL 96%, 500µg/mL 99%, IC₅₀ 52.38µg/mL and on extract samples 100µg/mL 52%, 200µg/mL 55%, 300µg/mL 65%, 400µg/mL 90%, 500µg/mL 94%. The results obtained by the ethyl acetate fraction of *Garcinia tetrandra* Pierre fruit peel have successfully shown anti-inflammatory activity %inhibition exceeds 20% and obtained IC₅₀ results 121.85µg/mL. The finding of anti-inflammatory activity of the ethyl acetate fraction of *Garcinia tetrandra* Pierre fruit peel in in-vitro studies provides a strong indication of the potential of its candidates in the development of anti-inflammatory drugs.

Keywords: *Garcinia tetrandra* Pierre, phytochemistry, TPC, TFC, BSA