

ABSTRAK

ALIFAH, D. Y., 2025, UJI AKTIVITAS TONIKUM FRAKSI N-HEKSAN, ETIL ASETAT DAN AIR DARI EKSTRAK ETANOL DAUN SAWO MANILA (*Manikara zapota*L.) TERHADAP MENCIT PUTIH JANTAN (*Mus musculus*), SKRIPSI, PROGRAM STUDI S1 FARMASI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA, Dibimbing oleh Dr. apt. Wiwin Herdwiani, S.Si., M.Sc. dan apt. Vivin Nopiyanti, M.Sc.

Sawo manila (*Manilkara zapota* L.) adalah tanaman dari famili *Sapotaceae* yang daunnya sering dipakai untuk menambah stamina. Kandungannya meliputi flavonoid, alkaloid, tanin, saponin, dan steroid yang berpotensi sebagai tonikum. Penelitian ini bertujuan menguji efek peningkat stamina dari fraksi *n*-heksan, etil asetat, dan air dari ekstrak daun sawo manila, serta mengidentifikasi senyawa aktif pada fraksi paling efektif menggunakan metode *Rotarod Test* pada mencit jantan (*Mus musculus*).

Daun sawo manila diekstraksi dengan metode maserasi menggunakan etanol 96%, lalu dipisahkan menjadi fraksi *n*-heksan, etil asetat, dan air. Sebanyak 30 mencit jantan dibagi menjadi 6 kelompok perlakuan, lalu diuji menggunakan *Rotarod Test* untuk melihat daya tahan sebelum dan sesudah perlakuan T0 sampai T3. Kelompok I CMC Na 1% (kontrol negatif), kelompok II kafein 0,00052mg/kg BB mencit (kontrol positif), kelompok III ekstrak 0,018mg/kg BB mencit, kelompok IV fraksi etil asetat 0,0036mg/kg BB mencit, kelompok V fraksi *n*-heksana 0,0054mg/kg BB mencit dan kelompok VI fraksi air 0,0072mg/kg BB mencit. Hasil yang diperoleh di analisis menggunakan uji *One Way Anova* dan *Tukey*.

Fraksi *n*-heksan, fraksi etil asetat dan air mempunyai aktivitas tonikum, Fraksi etil asetat yaitu dengan dosis 0,0035mg/kg BB mencit merupakan fraksi yang mana paling efektif dan juga mempunyai aktivitas tonikum yang mana sebanding dengan kontrol positif yaitu kafein 0,00052mg/kg BB mencit, yang terbukti dalam hasil data analisis SPSS dimana hasil uji *Tukey* untuk fraksi etil asetat memperoleh hasil yang sama signifikan dengan kontrol positif.

Kata kunci : *Manikara zapota* L., ekstraksi, fraksinasi, *Mus musculus*, tonikum, *rotarod test*

ABSTRACT

ALIFAH, D. Y., 2025, TESTING THE ACTIVITY OF HEXANE, ETHYL ACETATE, AND WATER FRACTIONS OF ETHANOL EXTRACT OF MANILA SAPOTE LEAVES (*Manikara zapota* L.) ON MALE WHITE MICE (*Mus musculus*), THESIS, UNDERGRADUATE PHARMACY STUDY PROGRAM, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA, Supervised by Dr. apt. Wiwin Herdwiani, S.Si., M.Sc. and apt. Vivin Nopiyanti, M.Sc.

Manila sativa (*Manilkara zapota* L.) is a plant from the *Sapotaceae* family whose leaves are often used to enhance stamina. Its contents include flavonoids, alkaloids, tannins, saponins, and steroids that have the potential to act as tonics. This study aims to test the stamina-increasing effects of n-hexane, ethyl acetate, and water fractions from the manila sapote leaf extract, as well as to identify the active compounds in the most effective fraction using the *Rotarod Test* method on male mice (*Mus musculus*).

Manila sapodilla leaves were extracted using the maceration method with 96% ethanol, then separated into n-hexane, ethyl acetate, and water fractions. A total of 30 male mice were divided into 6 treatment groups and tested using the *Rotarod Test* to observe endurance before and after treatments T0 to T3. Group I received 1% CMC Na (negative control), Group II received caffeine 0,00052mg/kg body weight of the mouse (positive control), Group III received extract 0,018mg/kg body weight of the mouse, Group IV received ethyl acetate fraction 0,0036mg/kg body weight of the mouse, Group V received n-hexane fraction 0,0054mg/kg body weight of the mouse, and Group VI received water fraction 0,0072mg/kg body weight of the mouse. The results were analyzed using *One Way Anova* and *Tukey*.

Fraction of n-hexane, ethyl acetate fraction, and water have tonic activity. The ethyl acetate fraction at a dose of 0,0035mg/kg of mouse body weight is the most effective fraction and also has tonic activity comparable to the positive control, which is caffeine at 0,00052mg/kg of mouse body weight, which is evidenced by the results of the SPSS data analysis where the *Tukey* test results for the ethyl acetate fraction obtained the same results as significant with the positive control.

Keywords : *Manikara zapota* L., extraction, fractionation, *Mus musculus*, tonic, *Rotarod Test*