

Tes Toleransi Glukosa Fraksi Ekstrak Etanol Buah Rimbang (*Solanum torvum swartz*) terhadap Hewan Uji Mencit Jantan (*Mus musculus*) yang Diinduksi Glukosa

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ABSTRAK

Diabetes melitus merupakan suatu keadaan yang ditandai dengan hiperglikemia yang disebabkan karena tidak adanya insulin atau resistensi insulin. Buah rimbang (*Solanum torvum swartz*) sejak dahulu telah dimanfaatkan sebagai antioksidan, antihipertensi, antipiretik, antimikroba, dan juga sebagai antidiabetes. Penelitian ini bertujuan untuk mengetahui aktivitas antihiperglikemik fraksi buah rimbang dan untuk mengetahui fraksi mana yang paling efektif dalam menurunkan kadar gula darah pada mencit jantan (*Mus musculus*) yang diinduksi glukosa dengan menggunakan metode Tes Toleransi Glukosa Oral (TTGO). Hasil pengujian skrining fitokimia menunjukkan bahwa ekstrak etanol buah rimbang mengandung senyawa alkaloid, flavonoid, triterpenoid dan tanin. Fraksinasi merupakan proses penarikan senyawa pada ekstrak menggunakan dua pelarut yang tidak saling bercampur. Dari hasil yang didapat rata-rata persentase penurunan kadar glukosa darah kelompok kontrol negatif (Na-CMC) sebesar 6,82%, kelompok kontrol positif (Metformin) 51,79%, kelompok fraksi N-heksan 60,29%, kelompok fraksi etil asetat 45,53%, kelompok fraksi air 52,29%. Buah rimbang memiliki aktivitas antidiabetes. Senyawa yang memiliki aktivitas antidiabetes diperkirakan adalah flavonoid dan triterpenoid.

Kata Kunci : Buah Rimbang, Antidiabetes, TTGO

***Glucose Tolerance Test of Ethanol Extract Fraction of Rimbang Fruit
(Solanum torvum swartz) on Male Mouse Test Animals (Mus musculus)
Induced by Glucose***

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ABSTRACT

Diabetes mellitus is a condition characterized by hyperglycemia caused by the absence of insulin or insulin resistance. Rimbang fruit (Solanum torvum swartz) has long been utilized as an antioxidant, antihypertensive, antipyretic, antimicrobial, and also as an antidiabetic. This study aims to determine the antihyperglycemic activity of rimbang fruit fractions and to determine which fraction is most effective in reducing blood sugar levels in glucose-induced male mice (Mus musculus) using the Test of Oral Glucose Tolerance (TTGO) method. Phytochemical screening test results showed that the ethanol extract of rimbang fruit contains alkaloid, flavonoid, triterpenoid and tannin compounds. Fractionation is the process of withdrawing compounds in the extract using two solvents that do not mix with each other. From the results obtained, the average percentage reduction in blood glucose levels of the negative control group (Na-CMC) was 6.82%, the positive control group (Metformin) 51.79%, the N-hexan fraction group 60.29%, the ethyl acetate fraction group 45.53%, the water fraction group 52.29%. Rimbang fruit has antidiabetic activity Compounds that have antidiabetic activity are thought to be flavonoids and triterpenoids.

Keywords: *Rimbang Fruit, Antidiabetes, TTGO*

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by Tania Aulia S1 Farmasi

Submission date: 01-Nov-2024 09:18AM (UTC+0700)

Submission ID: 2504518388

File name: Skripsi_Tania_Aulia_Putri_1.docx (163.15K)

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