# ABSTRAK

Diabetes melitus merupakan penyakit gangguan metabolisme yang ditandai dengan hiperglikemik. Tujuan penelitian untuk mengetahui pengaruh efek antihiperglikemik dan menentukan dosis efektif dari pemberian infusa daun pepaya (*Carica papaya* L.) pada mencit jantan galur *Swiss* terbebani sukrosa dengan metode uji toleransi gula oral. Daun pepaya (*Carica papaya* L.) terlebih dahulu dibuat serbuk kemudian dibuat sediaan infusa. Sediaan infusa daun pepaya (*Carica papaya* L.) dilakukan uji fitokimia senyawa alkaloid, flavonoid dan saponin. Sebanyak 25 ekor mencit dibagi acak ke dalam 5 kelompok perlakuan. Kelompok I sebagai kontrol sukrosa diberikan aquadest. Kelompok II sebagai kontrol akarbosa diberikan larutan akarbosa dengan dosis 80 mg/kgBB. Kelompok III, IV, V sebagai kelompok perlakuan diberikan dosis infusa daun pepaya (*Carica papaya* L.), yaitu 833,34; 1666,67; 3333,33mg/KgBB. Pemberian sukrosa dosis 4000mg/kgBB secara peroral diberikan setelah 30 menit pemberian perlakuan. Pengambilan kadar gula darah hewan uji diambil pada menit ke-0 yang dilakukan sebelum pemberian larutan sukrosa serta menit ke-15, 30, 60, 90, dan 120 setelah pemberian larutan sukrosa. Data yang diperoleh dibuat menggunakan metode trapesium (AUCt0-tn) kemudian dianalisis secara statistik. Hasil penelitian dapat disimpulkan bahwa infusa daun pepaya (*Carica papaya* L.) dosis 1666,67 dan 3333,33mg/KgBB memiliki kemampuan menurunkan kadar gula darah.

**Kata kunci** : antihiperglikemik, gula darah, infusa, pepaya (*Carica papaya* L.), sukrosa

## ABSTRACT

Diabetes mellitus is a disorder that is characterized by hyperglycemia. The aim of the study was to study the antihyperglycemic effect and determine the effective dose of infusion of papaya (*Carica papaya* L.) infusions on male *Swiss* mice with sucrose by using oral sugarcane testing methods. Papaya (*Carica papaya* L.) leaves are first made into powders and infusion preparations are made. Papaya leaf infusion preparations (*Carica papaya* L.) tested phytochemicals, alkaloids, flavonoids and saponins. A total of 25 mice were randomly divided into 5 managed groups. Group I as a control of sucrose was given aquadest. Group II as a control of root acrbose was given a root carcinoma supplement at a dose of 80 mg / kg BW. Group III, IV, V as the treatment group were given a dose of infusion of papaya leaves (*Carica papaya* L.), which was 833.34; 1666.67; 3333.33mg / Kg BW. Administration of 4000mg / kg BW sucrose was given orally after 30 minutes of treatment. Intake of blood sugar levels in animals taken at 0 minutes performed before administration of sucrose and minutes 15, 30, 60, 90, and 120 after administration of sucrose solution. The data obtained were made using the trapezoidal method ($AUC_{t0-tn}$) and then analyzed statistically. The results of this study can be concluded from the infusion of papaya leaves (*Carica papaya* L.) doses of 1666.67 and 3333.33mg / Kg BW have the ability to increase blood sugar levels.


**Keywords**: antihyperglycemic, blood sugar, infusion, papaya (*Carica papaya* L.), sucrose