

Siti Istiqomah, 2016. Pengaruh Ekstrak Daun Ketapang (*Terminalia catappa* L.) Terhadap Berat Badan dan Kadar Glukosa Darah Puasa Mencit (*Mus musculus*) Diabetik. Skripsi ini dibawah bimbingan Drs. Saikhu Akhmad Husen, M.Kes. dan Dr. Dwi Winarni, M.Si. Program Studi S1 Biologi, Departemen Biologi, Fakultas Sains dan Teknologi, Universitas Airlangga.

ABSTRAK

Ketapang (*Terminalia catappa* L.) adalah tanaman asli Asia Tenggara dan daun nya telah digunakan sebagai obat herbal untuk mengobati beberapa penyakit, termasuk sebagai antidiabetik. Tujuan dari penelitian ini adalah untuk mengetahui pengaruh ekstrak daun ketapang terhadap berat badan dan kadar glukosa darah puasa mencit diabetik. Dua puluh empat mencit jantan dengan berat badan 29-30 g dibagi menjadi 6 kelompok dan setiap kelompok berisi 4 mencit. Setiap mencit, kecuali kelompok kontrol normal (KN), dikondisikan *high fat diet* dan diabetes dengan cara diberikan lard sebanyak 0,3 mL secara oral selama 21 hari dan Streptozotocin dosis 30 mg/kg BB secara intra peritoneal selama 5 hari berturut-turut. Kemudian setiap mencit diberikan perlakuan secara per oral sebanyak 0,3 mL: KN dan KD dengan CMC 0,05%; KM dengan metformin dosis 65 mg/kg BB; KP1, KP2 dan KP3 dengan ekstrak daun ketapang dosis 50 mg/kg BB, 100 mg/kg BB dan 200 mg/kg BB. Pengaruh terhadap BB dan kadar GDP dievaluasi dari penambahan BB dan perubahan GDP setelah 14 hari perlakuan. Hasil analisis statistik *one way* Anova dan *t-test* dengan $\alpha = 0,05$ menunjukkan bahwa dosis terbaik ekstrak daun ketapang adalah pada dosis 50 mg/kg BB yang meningkatkan berat badan namun menurunkan GDP mencit diabetik.

Kata Kunci : berat badan, kadar glukosa darah puasa, streptozotocin, *Terminalia catappa* L.

Siti Istiqomah, 2016. The Effects of The Extract Tropical Almond (*Terminalia catappa L.*) Leaves in Body Weight and Fasting Blood Glucose Level of Diabetic Mice (*Mus musculus*). This Project is under guidance of Drs. Saikhu Akhmad Husen, M.Kes. and Dr. Dwi Winarni, M.Si. Biology, Department of Biology, Faculty of Science and Technology, Airlangga University.

ABSTRACT

Tropical almond (*Terminalia catappa L.*) is a native plant of Southeast Asia. Its leaves have been used as a traditional medicine for treating several diseases, included as diabetes. The aim of this study was to know the effect of the extract tropical almond leaves for body weight and fasting blood glucose level of diabetic mice. Twenty four male mice were divided into 4 groups and each group contains four mice. High fat diet was induced in the mice (except control group) by 0.3 mL lard during 21 days by oral treatment and diabetes condition was induced by Streptozotocin with dose 30 mg/kg BW by peritoneal treatment during 5 days continually. Next, each mice was given oral treatment with 0.3 mL: KN and KD by CMC with dose 0.05%; KM by metformin with dose 6.5 mg/kg BW; KP1, KP2, KP3 by the extract tropical almond leaves with dose 50 mg/kg BW, 100 mg/kg BW, 200 mg/kg BW. The effects in Body weight and were evaluated from the increase of body weight and the alteration of fasting blood glucose level after 14 days treatment. The result of this research showed that the best dose extract tropical almond leaves is 50 mg/kg BW which increased in body weight but decreased in fasting blood glucose level of diabetic mice.

Key words : body weight, fasting blood glucose level, streptozotocin, *Terminalia catappa L.*