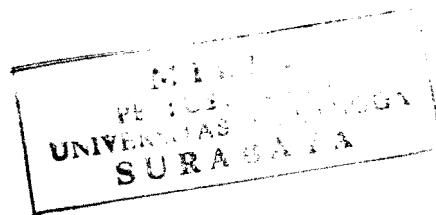


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**UJI HIPOGLIKEMIK EKSTRAK REBUSAN AIR DAN
EKSTRAK ETANOL KULIT BATANG JAMBU METE**
(*Anacardium occidentale* Linn)

SKRIPSI



MUHLISHOTUL MAHMUDA

**JURUSAN KIMIA
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UNIVERSITAS AIRLANGGA
SURABAYA
1999**

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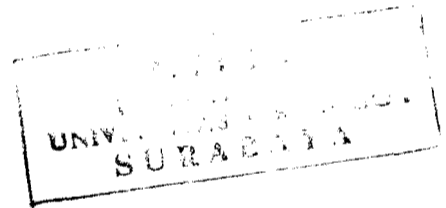
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Judul : Uji Hipoglikemik Ekstrak Rebusan Air dan Ekstrak Etanol Kulit
Batang Jambu Mete (*Anacardium occidentale* Linn)
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Muhlshotul Mahmuda, 1999. Hypoglycaemic Action of Water and Ethanol Extracts of Cashew's (*Anacardium occidentale*, Linn) Stem Bark. This script was experimented under guidences of Dr. Ami Soewandi, J.S. and Dr. Alfinda Novi K, DEA. The Faculty of Mathematics and Natural Sciences or Airlangga University, majoring in Chemical.

ABSTRACT

The effects of water and ethanol extracts of cashew's (*Anacardium occidentale*, Linn) stem bark to glucose tolerance test. Glucose loading in 20% solution was given with 1 g/kg bw doses. This experiment was conducted by using crossed pair on 5 rabbits. Before the treatment, those rabbits had been fasting for 12 hours. Their blood were taken with interval of 0, 1st, 2nd, 3rd, 4th, and 5th hours during fasting through ear margin veins. The level of blood glucose were measured by Nelson-Somogyi method, which is using spectrophotometer UV-1201 Shimadzu in 520 nm wave length. Water extract of cashew's stem bark in 20% w/v solution was given with 10 ml/kg bw doses and ethanol extracts was given equivalent with the water extract. Both of those extracts were given after taking their fasting blood, and 20% glucose loading were given on the next hour. Capacity of the decrease of glucose level was measured from the average glucose levels of the differences between every hours of blood taking to the zero hour of blood taking on each treatment group. These result showed that the hypoglycaemic action of water and ethanol extracts of cashew's stem bark are 28,32% and 34,57% compared with that of control and hypoglycaemic action of water and ethanol extracts of cashew's stem bark are 44,93% and 54,85% compared to 2,5 mg/kg bw glibenclamide. Statistical analysis by t-test showed that there are significant differences of glucose level between rabbits with water and ethanol extracts of cashew's stem bark to controlling rabbits and there were no significant differences of glucose level between rabbits with water and ethanol extracts of cashew's stem bark to rabbits with glibenclamide.

Key word : Cashew (*Anacardium occidentale*, Linn), hypoglycaemic, glucose of blood, glibenclamide.

Muhlishtul Mahmuda, 1999. Uji Hipoglikemik Ekstrak Rebusan Air dan Ekstrak Etanol Kulit Batang Jambu Mete (*Anacardium occidentale*, Linn). Skripsi di bawah bimbingan Dr. Ami Soewandi, J.S dan Dr. Alfinda Novi, K., DEA. Jurusan Kimia, Fakultas Matematika dan Ilmu Pengetahuan Alam, Universitas Airlangga, Surabaya.

ABSTRAK

Pengaruh ekstrak rebusan air dan ekstrak etanol kulit batang jambu mete (*Anacardium occidentale*, Linn) secara oral terhadap kadar glukosa darah kelinci dilakukan dengan uji toleransi glukosa, yaitu dengan pemberian beban glukosa 1 g/kg bb dalam bentuk larutan 20 %. Penelitian terhadap 5 ekor kelinci dilakukan secara kembar bersilang. Sebelum perlakuan, kelinci dipuasakan selama 12 jam. Darah diambil pada jam 0, 1, 2, 3, 4, dan 5 melalui vena marginalis telinga kelinci. Kadar glukosa darah diukur dengan metode Nelson-Somogyi menggunakan alat spektrofotometer UV-1201 Shimadzu pada panjang gelombang 520 nm. Rebusan air kulit batang jambu mete 20 % b/v diberikan dengan dosis 10 ml/kg bb, dan ekstrak etanol diberikan setara dengan rebusan air kulit batang jambu mete. Ekstrak rebusan air dan ekstrak etanol kulit batang jambu mete diberikan setelah pengambilan darah puasa dan larutan glukosa 20 % sebagai beban glukosa, diberikan satu jam berikutnya. Daya menurunkan kadar glukosa darah rata-rata setiap kelompok perlakuan antara waktu pengambilan darah jam ke-t dengan waktu pengambilan darah jam ke-0. Hasil daya hipoglikemik ekstrak rebusan air dan ekstrak etanol kulit batang jambu mete dibanding kontrol adalah 28,32% dan 34,57%. Sedangkan daya hipoglikemik ekstrak rebusan air dan ekstrak etanol kulit batang jambu mete dibanding glibenklamida dengan dosis 2,5 mg/kg bb adalah 44,93 % dan 54,85 %. Dari hasil analisis uji-t menunjukkan ada perbedaan bermakna antara kadar glukosa darah kelinci yang diberi ekstrak rebusan air dan ekstrak etanol kulit batang jambu mete dengan kadar glukosa darah kelinci kontrol. Tetapi tidak ada perbedaan bermakna antara kadar glukosa darah kelinci yang diberi ekstrak rebusan air dan ekstrak etanol kulit batang jambu mete dengan kadar glukosa darah yang diberi glibenklamida.

Kata kunci : Jambu mete, hipoglikemik, glukosa darah, glibenklamida.