

ABSTRAK  
EFEK EKSTRAK ETANOL DAUN MENGKUDU (*Morinda Citrifolia* L)  
TERHADAP KADAR GLUKOSA DARAH MENCIT JANTAN GALUR *Swiss Webster* YANG DIINDUKSI ALOKSAN

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Angka kesakitan dan kematian yang ditimbulkan penyakit Diabetes mellitus sangat tinggi. Gejala dari penyakit ini dapat menimbulkan produktivitas penderita menurun. Daun mengkudu (*Morinda Citrifolia* L) merupakan salah satu tanaman yang dapat mengobati Diabetes mellitus.

Tujuan penelitian ini adalah untuk mengetahui efek ekstrak etanol daun Mengkudu (EDM) terhadap penurunan gula darah mencit Galur *Swiss Webster* yang di induksi aloksan.

Metode penelitian eksperimental laboratorium, menggunakan Rancangan Acak Lengkap (RAL) bersifat komparatif. Hewan coba yang digunakan adalah mencit jantan dewasa galur *Swiss Webster* sebanyak dua puluh lima ekor, berat badan 25 gram yang diinduksi aloksan. Pada hari ke 7 setelah diinduksi, semua mencit dipuasakan selama 16 jam, kemudian diperiksa kadar glukosa darah (KGD). 25 ekor mencit di bagi dalam 5 kelompok ( $n=5$ ) secara acak dan diberi perlakuan selama 7 hari (EDM dosis 1 (kgBB), EDM dosis 2 (kgBB), EDM dosis 3 (kgBB), CMC (kontrol), dan Glibenklamid 0,65 mg/kgBB (pembanding). Pengukuran KGD (mg/dl) kemudian diukur kembali pada hari ke 7 perlakuan.

Analisis data persentase penurunan KGD menggunakan metode ANAVA satu arah yang dilanjutkan dengan uji beda rata-rata Tukey *HSD* dengan  $\alpha = 0,05$ .

Hasil penurunan kadar glukosa darah setelah di beri EDM dosis 1, EDM dosis 2, EDM dosis 3, CMC, dan Glibenklamid berturut-turut adalah 27,84%, 34.73%, 42.97%, -0.5%, 48.92%. EDM dosis 1 sampai EDM dosis 3 menunjukkan perbedaan yang signifikan ( $p < 0.05$ ) dengan CMC (kontrol), dan EDM dosis 3 menunjukkan perbedaan yang tidak signifikan ( $p > 0.05$ ) dengan Glibenklamid (pembanding), sedangkan EDM dosis 1 dan EDM dosis 2 menunjukkan perbedaan yang signifikan.

Kesimpulannya EDM dosis 1 sampai EDM dosis 3 menurunkan kadar glukosa dalam darah, dengan EDM dosis 3 yang penurunannya setara dengan Glibenklamid.

Kata kunci : Ekstrak etanol daun Mengkudu (EDM), glukosa darah

**ABSTRACT**  
***THE EFFECT OF ETANOL EXTRACT MORINDA CITRIFOLIA L ON MICE'S  
BLOOD GLUCOSE CONCENTRATION WHICH INDUCED BY ALLOXAN***

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*The morbidity and mortality of Diabetes mellitus is very high. The symptoms can make the productivity of the patients become low. Morinda Citrifolia L is one of the plants that are believed to cure the Diabetes mellitus disease.*

*The aim of this research is to figure out the effect of Morinda Citrifolia L ethanol extract from the amount of blood glucose on mice which is induced by Alloxan.*

*The method of this research uses the prospective experimental research. The prospective uses complete randomized design. Male grown mice acted as animal trial in this research are Swiss Webster furrow with its weight 25 grams each. Which had been induced by Alloxan After 7 days being induced the mice have to fast for 16 hours. And then the blood glucose was checked. The 25 mice were divided randomly into 5 groups (n=5) and were given treatment during 7 days (extract of pace ethanol EDM 1, EDM 2, EDM 3, CMC (control), and Glibenclamide (compared). The amount of blood glucose was checked again after 7 days treatment.*

*The result was analyzed with ANAVA of one direction, and proceeded by average different test Tukey HSD with  $\alpha = 0.05$*

*The results of the blood glucose reduction after being given the extract of pace ethanol EDM 1, EDM 2, EDM 3, CMC, and Glibenclamide were 27,84%, 34.73%, 42.97%, -0.5%, 48.92%. The groups of extract of ethanol pace EDM 1, EDM 2 and EDM 3 comparing with CMC (control negative) showed the significant difference ( $p < 0.05$ ), and EDM 3 comparing with Glibenclamide (positive control) did not show the significant difference ( $p > 0.05$ ), but EDM 1 and EDM 2 comparing with Glibenclamide showed the significant difference ( $p < 0.05$ ).*

*For the conclusion, EDM 1, EDM 2, and EDM 3 can reduce the amount of blood glucose but only EDM 3 can reduce the amount of blood glucose that is equivalent with glibenclamide.*

*Key word: Morinda Citrifolia L, blood glucose*

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