

Antidiabetic Activity of *Ipomoea batatas* L. Leaves Extract In Streptozotocin-Induced Diabetic Mice

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Abstract: Diabetes mellitus (DM) is caused by the deficiency of insulin production that functions in the utilization of glucose as the source of energy and fat synthesis so that the lack of insulin hormone will increase the blood glucose level. Traditionally, *Ipomoea batatas* L. leaves have been used for the treatment of diabetes, cancer, as antioxidant, hyperlipidemic, by natives in different regions and also to cure dengue fever. The objectives of this study were to analyze antidiabetic activity of ethylacetate extract in streptozotocin-induced mice. This study consisted of plant material procurement and extract preparation, phytochemical screening, mice blood glucose level examination, and data analysis. Analysis of their antidiabetic activity was started by measuring glucose tolerance to identify the extract of the highest activity at varied dosages (100, 200, and 300 mg/kg bw) of this extract was examined on the streptozotocin-induced mice. At the fifteenth day of treatment, all extracts at dosages of 100, 200, and 300 mg/kg bw exerted similar effects to those of metformin, except 0.5% CMC. Antidiabetic effect exerted by EEA of *Ipomoea batatas* L. 300 mg/kg bw was significantly different from that produced by EAE 100 mg/kg bw ($\alpha = 0.05$).

Keywords : *Ipomoea batatas* L. leaf, streptozotocin, diabetes mellitus.

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