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Graptophyllum pictum (L) Griff Leaf Extracts Have Potential to Protect Pancreas of Alloxan-induced Hyperglycemic Mice

I Made Artika*, Hayatul Rahmi, Djarot Sasongko Hami Seno, Waras Nurcholis

Department of Biochemistry, Faculty of Mathematics and Natural Sciences, Bogor Agricultural University, Darmaga Campus, Bogor 16680, Indonesia

Abstract : Background: Antidiabetic compounds in plants provide important sources for the development of new drugs in the treatment of diabetes mellitus. *Graptophyllum pictum* (L) Griff is a plant believed to have potential for alleviating symptoms of diabetes mellitus. The purpose of the present study was to evaluate the activity of *Graptophyllum pictum* (L) Griff leaf extracts in protecting pancreatic cells of alloxan-induced hyperglycemic mice.

Methods: Extracts of *Graptophyllum pictum* (L) Griff leaf were obtained by macerating the plant leaf with ethanol and then partitioning the extract with diethyl ether, ethyl acetate, and butanol. Resultant extracts were used to treat hyperglycemic mice over 14 days.

Results: The results showed that the leaf extracts have the ability to protect the pancreas from alloxan-induced damage. An ethyl acetate extract showed the highest protective activity.

Conclusion: The *Graptophyllum pictum* (L) Griff leaf extract has the potential to be developed as a source for anti-diabetic medication.

Keywords: Antidiabetic agent, *diabetes mellitus*, *Graptophyllum pictum* (L) Griff, hyperglycemic mice.

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