

Antidiabetic Effect of Methanolic Leaves Extract and Isolated Constituents from *Saraca Asoca*

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Abstract : Background: The present study was performed to investigate the antidiabetic effect of the constituents isolated from *Saraca asoca* by enzyme inhibitory activity. Methods: The dried leaves of *Saraca asoca* were defatted with petroleum ether and further the same amount plant materials were extracted with methanol. The dried methanol extract was subjected to fractionation and chromatographic separation, which led to the isolation of kaemferol, β -sitosterol and quercetin stigmasterol. Their structures were elucidated on the basis of spectroscopic studies as well as by comparison with the data available in the literature. The compounds were evaluated for in vitro enzyme inhibition effect. Results: The isolated compounds kaemferol, β -sitosterol and stigmasterol showed 45.32, 40.5 and 41.23% α -amylase inhibition respectively and 43.45, 39.29 and 32.43% α -glucosidase inhibition respectively at the conc. of 50 μ g/kg. Conclusion: The compounds isolated from *Saraca asoca* showed in vitro and in vivo antidiabetic activity. So, *Euphorbia hirta* is a beneficial plant for management of diabetic disorders.

Keywords : diabetes, quercetin, sitosterol, stigmasterol

Conference Title : ICABB 2015 : International Conference on Applied Bioscience and Biotechnology

Conference Location : Berlin, Germany

Conference Dates : May 21-22, 2015