

# **Investigation in rats of the antihyperglycemic effect of plant extracts used in taiwan for the treatment of diabetes mellitus**

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## **Abstract**

In order to clarify the hypoglycemic activity of plants that are widely used to treat diabetes mellitus in Taiwan, the present study investigated the effectiveness of ten plant extracts by screening the decrease of blood glucose level in streptozocin-induced diabetic rats. We found that only six plant extracts exhibited blood glucose lowering activities in the rat. Blood levels of insulin were also determined using radioimmunoassay methods. Lack of an increase of insulin-like immunoreactivity in rats treated with these six plant extracts ruled out the mediation of insulin-dependent mechanisms. Similar effects were also observed in glucose-challenged rats treated with these extracts. The results confirmed the hypoglycemic activity of these plants and suggested that this action was produced through an insulin-independent mechanism.