

ABSTRACT

Antidiabetic Activity Of Granule Extract Combination Of Mangosteen Pericarps (*Garcinia mangostana*) And Cat's Whiskers Leaves (*Orthosiphon stamineus*) In Alloxan-Induced Diabetic Mice : *Literature review*

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Diabetes mellitus is a metabolic disorder characterized by an increase glucose levels in the blood (hyperglycemia). This is associated with abnormalities in carbohydrate, fat and protein metabolism due to abnormalities in insulin secretion, insulin action (sensitivity) or both, from genetic and environmental factors and resulting in chronic complications including microvascular, macrovascular and chronic neuropathy. Mangosteen (*Garcinia mangostana* L.) and kumis kucing or cat whiskers (*Orthosiphon stamineus* Benth.) are original plants from Indonesia, which have been studied and have antidiabetic properties. Xanthones, α -mangostin, which is contained in the rind of mangosteen (*G. mangostana* L.) are known to have antidiabetic properties by stimulating insulin secretion in cells and maintaining a number of INS-1 cells at high glucose levels. In the cat's whiskers plant (*Orthosiphon stamineus* Benth.), the content of sinensetin as an antidiabetic effect has been shown to inhibit α -glucosidase and α -amylase, which have the potential to be effective therapy in post prandial hyperglycemia in type 2 diabetes mellitus. In this literature review was carried out in a scoping review method regarding the antidiabetic activity of the extract combination of mangosteen (*G. mangostana* L.) rind and cat's whiskers (*O. stamineus* Benth.) in alloxan-induced mice (*Mus musculus*). Literature studies were also conducted regarding the synergistic effect of the two plants in reducing blood sugar levels in diabetic experimental in vivo animals model. Data analysis was performed with the appropriate keywords and inclusion criteria.

Keywords : Antidiabetic Activity, *Garcinia mangostana*, *Orthosiphon stamineus*, Combination, In Vivo Animals Model