

# **Myricetin as the Active Principle of *Abelmoschus moschatus* to Lower Plasma Glucose in Streptozotocin-Induced Diabetic Rats**

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## **Abstract**

The antihyperglycemic action of myricetin, purified from the aerial part of *Abelmoschus moschatus* (Malvaceae), was investigated in streptozotocin-induced diabetic rats (STZ-diabetic rats). Bolus intravenous injection of myricetin decreased the plasma glucose concentrations in a dose-dependent manner in STZ-diabetic rats. Myricetin at the effective dose (1.0 mg/kg) significantly attenuated the increase of plasma glucose induced by an intravenous glucose challenge test in normal rats. A stimulatory effect of myricetin on glucose uptake of the soleus muscles isolated from STZ-diabetic rats was obtained in a concentration-dependent manner from 0.01 to 10.0 micromol/L. The increase of glucose utilization by myricetin was further characterized using the enhancement of glycogen synthesis in isolated hepatocytes of STZ-diabetic rats. These results suggest that myricetin has an ability to enhance glucose utilization to lower plasma glucose in diabetic rats lacking insulin.