

## Hypolipidemic activity of an aqueous extract of *Morinda citrifolia* fruit in normal and streptozotocin-induced diabetic rats

### ABSTRACT

This study was undertaken to investigate the hypolipidemic activity of *Morinda citrifolia* fruit extract. Aqueous extract of *M. citrifolia* in concentrations ranging from 0.25 g/kg (low dose), 0.50 g/kg (medium dose) and 1.00 g/kg (high dose) were orally administered on streptozotocin-induced diabetic rats for 6 weeks. The hypolipidemic effect of *M. citrifolia* extract in rats was determined by measuring the total lipid, total cholesterol and triglyceride concentrations in blood (plasma) and liver tissue. The administration of medium dose of *M. citrifolia* extract had significantly ( $p < 0.05$ ) reduced the cholesterol content in blood and liver of normal rats as compared to the normal control rats. For the diabetic rats, the administration of medium and high doses of *M. citrifolia* extracts successfully reduced the plasma triglyceride level significantly ( $p < 0.05$ ) as compared to diabetic control rats. The concentration of triglyceride and total lipid in the liver were also decreased significantly ( $p < 0.05$ ) in the diabetic rats which had received high dose of *M. citrifolia* extract as compared to control rats. Results showed that *M. citrifolia* exhibits the potential in lowering the concentration of certain lipid components in blood and tissue of experimental rats.

**Keyword:** *Morinda citrifolia*; Hypolipidemic; Normal rats; Streptozotocin-induced diabetic rats