

Antilipase and antioxidant activity of *Phyllanthus niruri* ethanolic extract

Abstract

The aim of this study is to determine the antilipase and antioxidant activity of *Phyllanthus niruri* methanolic extract. The inhibitory activity against porcine pancreatic lipase (PPL) was determined by measuring the hydrolysis of p-nitrophenyl butyrate to p-nitrophenol at 405 nm. The crude extract exhibited strong lipase inhibitory activity with an IC₅₀ value of 27.65 µg/mL. The inhibition mode study disclosed that *P. niruri* could act as noncompetitive inhibitor. Antioxidant activity of *P. niruri* extract was measured by 2, 2, diphenyl-1-picrylhydrazyl (DPPH) free radical scavenging activity assay. *P. niruri* showed high antioxidant activity with an EC₅₀ value of 7.471 µg/mL. The results suggested that *P. niruri* has shown potential as a source of natural antilipase and antioxidant.

Keyword: *Phyllanthus niruri*; Antilipase; Antioxidant; DPPH