

Basic Health Sciences

Poster

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Antilipase and antioxidant activity of *Orthosiphon stamineus* methanolic extract

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Introduction: Antilipase from natural resources are a potential tool for the treatment of obesity while antioxidant-rich plants are essential in combating degenerative diseases. The aim of this study is to determine the antilipase and antioxidant activity of *Orthosiphon stamineus* methanolic extract. **Methods:** The inhibitory activity against pancreatic lipase was determined by measuring the hydrolysis of p-nitrophenyl butyrate to p-nitrophenol at 405 nm. Antioxidant activity of *O. stamineus* extract was measured by 2, 2, diphenyl-1-picrylhydrazyl (DPPH) free radical scavenging activity assay. **Results:** The *O. stamineus* crude extract exhibited strong lipase inhibitory activity with an IC₅₀ value of 34.7 µg/ml. The inhibition mode study disclosed that *O. stamineus* could act as uncompetitive inhibitor. *O. stamineus* showed high antioxidant activity with an EC₅₀ value of 26.3 µg/ml. **Conclusions:** The results suggest that *O. stamineus* has shown potential as a source of natural antilipase and antioxidant.

KEYWORDS: *Orthosiphon stamineus*, antilipase, antioxidant, pancreatic lipase inhibitor