



Research article

An alkaloid derivative from *Coscinium fenestratum* exhibit dual COX/LOX inhibition

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Key words: *Coscinium fenestratum*, Cyclooxygenase, Lipoxygenase, Aspirin, Nimesulide.

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Abstract

Agents that inhibit both Cyclooxygenase (COX) and Lipoxygenase (LOX) are highly recommended in the development of anti-inflammatory drugs. An alkaloid derivative from *Coscinium fenestratum* was isolated and characterized by UV Visible, IR, ¹H NMR, ¹³C NMR and LC-MS spectroscopy. Dual COX/LOX inhibitory study was performed by high throughput screening assay. In the control (maximum enzyme activity) experiment COX activity of 73 μmol/min was noted, which is reduced to 50 μmol/min by the compound isolated. The standard inhibitors show 38 and 29 μmol/min respectively for Aspirin and Nimesulide. Compound isolated from *Coscinium fenestratum* also possess significant LOX inhibition when compared to standard inhibitor vanillin.