

## Accepted Manuscript

Title: Plasma and urine metabolite profiling reveals the protective effect of *Clinacanthus nutans* in an ovalbumin-induced anaphylaxis model: <sup>1</sup>H-NMR metabolomics approach

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**Plasma and urine metabolite profiling reveals the protective effect of *Clinacanthus nutans* in an ovalbumin-induced anaphylaxis model: <sup>1</sup>H-NMR metabolomics approach**

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### Highlights

- <sup>1</sup>H-NMR metabolomics aids in identification of anaphylaxis biomarkers and pathways
- 2000 mg/kg *Clinacanthus nutans* water leaf extract attenuates anaphylaxis reaction
- Carbohydrate and lipid metabolism are key requisites for induction of anaphylaxis
- Betaine is the most potential biomarker in suppressing ovalbumin induced anaphylaxis

### Abstract

The present study sought to identify the key biomarkers and pathways involved in the induction of allergic sensitization to ovalbumin and to elucidate the potential anti-anaphylaxis property of *Clinacanthus nutans* (Burm. f.) Lindau water leaf extract, a Southeast Asia herb in an *in vivo* ovalbumin-induced active systemic anaphylaxis model evaluated by <sup>1</sup>H-NMR

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