

6<sup>th</sup> International Conference and Exhibition on

# Traditional & Alternative Medicine

September 14-16, 2016 Amsterdam, Netherlands

## Decreased interleukin-4 (IL-4), IL-10 and IgE level of type I hypersensitive mice using scopoletin isolated from noni fruit (*Morinda citrifolia* L)

Yufri Aldi, Elliza Nasrul, Yanwirasti, Dian Handayani and Dachriyanus  
Fakultas Farmasi, Indonesia

An *in vivo* study of the activity of scopoletin isolated from noni fruit (*Morinda citrifolia* L.) on the level of interleukin-4 (IL-4), IL-10 and IgE in type I hypersensitive male Swiss-Webster mice has been carried out. Scopoletin was isolated from dried noni powder by soxhletation method using dichloromethane, separated by column chromatography using silica gel as stationary phase and n-hexane-ethyl acetate (1:4) as mobile phase, then purified by column chromatography using Sephadex LH20 as stationary phase and methanol as mobile phase. Type I hypersensitive male mice were obtained by ovalbumin sensitization. Animal model were divided into 5 groups: negative control group, positive control group, and scopoletin-treated group (1; 3; and 10 mg/kg). The results showed that scopoletin at doses of 1, 3 and 10 mg/kg decreased the level of IL-4 of type I hypersensitive mice significantly ( $p < 0.01$ ). The scopoletin at the dose of 10 mg/kg decreased the serum level of IL-4, IL-10, and IgE ( $P < 0.01$ ) to the normal level. The ability of scopoletin to decrease IL-4 and IgE concentration of type I hypersensitive mice to its normal state was shown by dose of 10 mg/kg BW ( $p > 0.05$ ), while for IL-10 concentration, the decrease until its normal level was shown by dose of 3 mg/kg BW ( $p < 0.05$ ).

### Biography

Yufri Aldi is a Lecturer at the Faculty of Pharmacy, University of Andalas. He completed his PhD in 2013 at Andalas University. His research is in the field of Farmaco-Immunology.

[yufrialdi@gmail.com](mailto:yufrialdi@gmail.com)

Notes: