

Inhibitory effect of ethanolic extracts of *Sargassum confusum* C. Agardh on atopic dermatitis in DNCB-stimulated mice

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The present study aimed to evaluate the inhibitory effects of an ethanolic extract of *Sargassum confusum* (SCEE) on acute atopic dermatitis (AD) using a murine model. AD-like symptoms were induced in BALB/c mice by repeated application of 2,4-dinitrochlorobenzene (DNCB), followed by topical administration of SCEE. Clinical evaluation revealed that SCEE treatment significantly reduced dermatitis severity scores and white blood cell counts. Moreover, the levels of pro-inflammatory markers such as TNF- α , total IgE, and Th2 cytokines (IL-4 and IL-5) were markedly suppressed, while the anti-inflammatory cytokines IL-10 and interferon- γ were significantly elevated in both serum and splenocytes. These results suggest that SCEE may have therapeutic potential as a natural functional material for the prevention or treatment of atopic dermatitis through modulation of immune responses.

Keywords: *Sargassum*, Atopic dermatitis, T lymphocytes, 2,4- dinitrochlorobenzene (DNCB), Mouse model