

In vitro Anti-inflammation Effect of Adventitious Shoots of *Toona sinensis* in *Propionibacterium acnes*-induced Skin Dermatitis

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Toona sinensis (TS) leaf is known to antinociceptive, antioxidative stress and skin moisturizing effects. *Acnes vulgaris* is a chronic skin disease with various symptoms including itchiness, pain and interruption of normal skin function. *Propionibacterium acnes* (*P. acnes*) is a major factor in the occurrence of inflammatory acnes. This study evaluated the antioxidant and anti-inflammation effects by TS extract from adventitious shoots. TS extract showed anti-inflammatory activities by suppression of pro-inflammation mediators (iNOS and COX-2) in LPS-stimulated RAW264.7 cells. TS extract also has anti-inflammatory activities by inhibiting the secretion of pro-inflammatory cytokines on *P. acnes*-stimulated HaCaT cells. These effects were regulated by MAPK signaling pathway. Therefore, we suggest that TS extract from adventitious shoots might have applications as a medicine for treating *P. acnes*-induced skin diseases.

Key words: *Toona sinensis*, acne, anti-inflammation, murine macrophage, keratinocyte

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