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Screening for anti-inflammatory effect of *Fritillaria thunbergii* Miquel in TNF-α and IFN-γ induced HaCaT keratinocyte

Sooyeon Hong, Minsun Kim, Eun-Young Kim and Hyuk-Sang Jung
Kyung Hee University, Republic of Korea

Fritillaria thunbergii Miquel (FT) is bulbous plant of *Liliaceae*, has traditionally been used as an as an antitussive, expectorant, antihypertensive and anti-inflammatory agent. In this study, we aimed to determine the anti-inflammatory and anti-allergy effects of solvent extracts from FT. FT was extracted with 4 kinds of solvents. The extracted samples were as follows; Methanol extracts (M-FT), Chloroform Fraction (Cl_FT), Ethyl Acetate Fraction (EA_FT) and water Fraction (w_FT). To determine the anti-inflammatory effect, we measured the expression of Thymus and Activation Regulated Chemokine (TARC/CCL17) and Macrophage-Derived Chemokine (MDC/CCL22), which well known as typical inflammatory chemokines using a HaCaT keratinocyte. Also we investigated b-hexosaminidase to determine anti-allergy effect from RBL2H3. In this result, w_FT did not show anti-inflammatory effect. M_FT and EA_FT significantly inhibited TARC/CCL17 and MDC/CCL22 at a 400 ug/ml dose, Cl-FT significantly inhibited TARC/CCL17 and MDC/CCL22 at a 50 ug/ml. Additionally, Cl-FT inhibited the IL-4 expression. Anti-allergy effect was not showed in M_FT, EA_FT and w_FT. But Cl_FT significantly inhibited the release of b-hexosaminidase at 25 ug/ml and 50 ug/ml. These results suggest that Cl_FT could be suitable in development of inflammatory agent.

Biography

Sooyeon Hong is pursuing Master Degree at Kyung Hee University and she is investigating the osteoporosis and atopic dermatitis at Department of Oriental Medicine in Kyung Hee University.

ghdtndus121@naver.com

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