Studies on Anti-inflammatory Activities of Extracts from Manglietia insignis and Tirpitzia sinensis

Hyun-Jee Oh, Sang-Soo Lee and June-Hyun Kim*

The University of Suwon, Department of Biotechnology

The aim of the study was to determine the antioxidant activities of the plants with origin of Vietnam. The Manglietia insignis (Wall.) Blume, which is a species of plant in the family Magnoliaceae and Tirpitzia sinensis (Hemsl.) Hallier f., which is a species of plant in the family Linaceae were tested for antioxidant activities. Samples were prepared using 95% ethanol using Nitric Oxide (NO) assay for assessing the anti-inflammatory activity. NO assay experiment showed that extracts of the Manglietia insignis (Wall.) Blume and Tirpitzia sinensis (Hemsl.) Hallier f. might have the 36.2% more anti-inflammatory activity and 59.5% more anti-inflammatory activity, respectively, compared to control. To determine the cell toxicity, MTT (3-(4,5-dimethylthiazol-2-yl) -2,5-diphenyltetrazolium bromide) assay was used. MTT assay experiment showed that the Manglietia insignis (Wall.) Blume and Tirpitzia sinensis (Hemsl.) Hallier f. might have the 31.0% less toxicity and 8.52% more toxicity, respectively, compared control. Taken together, these experiments showed that Manglietia insignis (Wall.) Blume extracts might have significantly higher anti-inflammatory activities and relatively lower toxicity, compared to control.

*(Corresponding author) E-mail: jk819900@gmail.com, Tel: +82-31-220-2519