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New xanthone and bioactive constituents from *Garcinia subelliptica*

Jih-Jung Chen (陳日榮)[1*], Hsiang-Ruei Liao (廖庠睿)[2] , Zou-Chu Chen (陳柔竹)[1], Hui-Hsuan Chand (張傿琁)[1], Yi-Ting Yang (楊依庭)[1], Min-Hsiu Kuo (郭旻修)[3], Yu-Yan Kuo (郭毓晏)[4], Jhy-Yih Chen (陳志益)[1], and Dau-Chang Wei (魏道昌)[1]

[1]Department of Pharmacy, Tajen University, Pingtung 907, Taiwan
[2]Graduate Institute of Natural Products, Chang Gung University, Taoyuan 333, Taiwan
[3]National Chiayi Senior High School, Chiayi 600, Taiwan
[4]National Chiayi Girls' Senior High School, Chiayi 600, Taiwan

Garcinia subelliptica Merr. (Guttiferae) is a small-to-medium-sized dioecious tree, distributed throughout Philippines, the Ryukyus, and Taiwan. Benzopyrans, biphenyls, benzophenones, xanthones, benzoylphloroglucinols, phloroglucinols, terpenoids, and their derivatives are widely distributed in plants of the genus *Garcinia*. Many of these compounds exhibit diverse biological activities, including anti-tubercular, anti-inflammatory, and cytotoxic activities. In a preliminary screening, the methanolic extract of the root of this species showed anti-inflammatory activities *in vitro*.

Phytochemical investigation of the stem of this plant has led to the isolation of a new xanthone derivative, garcisubellone (**1**), and four known compounds (**2–5**). The structure of new compound **1** was determined through spectroscopic and MS analyses. The anti-inflammatory effects of the isolated compounds from the roots of *G. subelliptica* were evaluated by suppressing fMet-Leu-Phe (fMLP)-induced O_2^- generation by human neutrophils. Among the isolated compounds, 1,4,5-trihydroxyxanthone (**4**) exhibited potent inhibition, with IC_{50} value of 15.6 ± 2.8 μM, against formyl-L-methionyl-L-leucyl-L-phenylalanine (fMLP)-induced super-oxide anion (O_2^-) generation.