

Isolation, Characterization and Biological Activities of Compounds Isolated from *Callicarpa maingayi*

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Abstract : In this study, we have investigated the phytochemical constituents of soluble fractions of dichloromethane (DCM) of methanolic leaves extract of the *Callicarpa maingayi*. The phytochemicals investigation has resulted in the isolation of three triterpenoids (euscaphic acid (1), arjunic acid (2), and ursolic acid (3)) together with two flavones apigenin (4) and acacetin (5), two phytosterols (stigmasterol 3-O- β -glycopyranoside (6) and sitosterol 3-O- β -glycopyranoside (7)), and one fatty acid (n-hexacosanoic acid (8)). Six (6) compounds isolated from this species were isolated for the first time (1, 2, 3, 4, 5, and 8). Their structures were elucidated and identified by spectral methods of one and two-dimensional NMR techniques, gas chromatography-mass spectrometry, and comparison with the previously reported literature. The biological activity of three compounds (1-3) was carried out on acetylcholinesterase inhibition activity. Compound (3) was found to displayed good inhibition against AChE with an IC_{50} value of $21.5 \pm 0.022 \mu\text{M}$.

Keywords : acetylcholinesterase, *Callicarpa maingayi*, euscaphic acid, ursolic acid

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