

P-4**Chemical Constituents and Their Biological Activities of *Artocarpus Communis***Clifford Junaidi Kutoi¹, Khong Heng Yen^{1,*}, Yana Maolana Syah² and Euis H. Hakim²

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Artocarpus (Moraceae) comprises about 50-60 species and distributed throughout South and Southeast Asia, New Guinea and Southern Pacific region. *A. communis* is locally known as a "Sukun". *Artocarpus* species are well known for its medicinal purposes including used for the treatment of inflammation, ulcers, diarrhea and malaria fever. Previous studies reported that this plant exhibited bioactive compounds such as flavonoids, stilbenoids and arylbenzofurans which respond to the pharmacological activities involving the anti-malaria, anti-microbial, anti-inflammatory and cytotoxic against HL 60 cells line, MCF 7 cells line, P388 cells line, HT 29 and others. The isolation of methanolic leaves extract of *A. communis* was successfully led to three phenolic compounds, namely 1-(2,4-Dihydroxyphenyl)-3-[8-hydroxy-2-methyl-2-(4-methyl-3-pentenyl)-2H-1-benzopyran-5-yl]-1-propanone (**1**), 8-(3,6-Dimethyl-2-heptenyl)-4',5,7-trihydroxyflavanone (**2**), 1-(2,4-Dihydroxyphenyl)-3-[2-(3,7-dimethyl-2,6-octadienyl)-3,4-dihydroxyphenyl]-1-propanone (**3**) and squalene (**4**). Compound **4** was reported for the first time from this species. On biological properties evaluation, compounds **1** and **3** showed strong cytotoxicity against Hep-G2 cell lines while compounds **1-3** demonstrated strong inhibition against *Staphylococcus aureus*, *Streptococcus pyogenes*, *Pseudomonas aeruginos*, *Escherichia coli* and *Clostridium difficile* based on the minimum inhibitory concentration (MIC) assays.

Keywords: *Artocarpus communis*, cytotoxic, Hep-G2 cell lines, anti-microbial.
