ABSTRACT

STUDY ANTI-HCV ACTIVITY AGAINST JFH1a FROM Artocarpus spp. COLLECTED FROM BOTANICAL GARDEN OF BALIKPAPAN, EAST BORNEO

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Artocarpus sericicarpus, Artocarpus anisophyllus, and Artocarpus dadah are plants from Moraceae family. Previous research showed that the 80% ethanol extract of Ficus fistulosa leaves from Moraceae family have potential anti Hepatitis C Virus (HCV) activity against JFH1a with IC$_{50}$ value of 20.43±4.5 µg/ml. The three Artocarpus plants were extracted gradually using hexane, dichloromethane, and methanol. The extracts were further determined for their anti HCV activities against JFH1a using Huh7it cell line. The results showed that methanol extracts of Artocarpus dadah stem bark and Artocarpus sericicarpus leaves at a concentration of 30 µg/ml inhibited HCV by 99.45±0.77% and 98.36±0.77%, respectively. Methanol extracts of Artocarpus dadah stem bark and Artocarpus sericicarpus leaves exhibited anti HCV activities with IC$_{50}$ value of 1.00±0.58 µg/ml and 3.87±2.44 µg/ml, respectively. Meanwhile, cytotoxicity assay showed that methanol extract of the studied plants had 100% cell viability value. In conclusion, methanol extracts of Artocarpus dadah stem bark and Artocarpus sericicarpus leaves inhibited HCV production and not toxic for Huh7it cell lines.

Keywords : Artocarpus sericicarpus, Artocarpus anisophyllus, Artocarpus dadah, extract, Moraceae, antivirus Hepatitis C