# CHEMICAL COMPOSITION OF BOILED AND RAW *Muntingia calabura* LEAVES

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**ABSTRACT**

Human societies have been in close contact with their surroundings since the beginning of their formation and used the ingredients of the environment to obtain food and medicine. *Muntingia calabura* is one of the commonly used traditional medicines in Southeast Asia to treat fever, cold and headache due to the presence of bioactive compounds found on various parts of plant with potent biological activities such as antioxidant, anticancer, antibacterial, anti-inflammatory and more. The objective of this study is to determine the chemical composition in the leaves of *Muntingia calabura*. The present study involved the simple extraction methods by using soaked and boiled liquid sample. There were some compounds successfully isolated from the n-hexane, methanol and petroleum ether extract. The structures of the compounds were characterized by modern spectroscopic techniques such as FTIR and GC-MS and were compared with published data. GC-MS analysis of *Muntingia calabura* revealed the existence of compound that has antimicrobial activity, antibacterial activity and antitumor activity, which also exhibit antioxidant and can prevent cancer. The compound includes oleic acid, 14-Octadecenoic acid and Butylated hydroxytoluene. The Fourier Transform Infrared (FTIR) analysis shows the most prominent peaks at ~2927cm$^{-1}$, ~2953 cm$^{-1}$ and ~3306 cm$^{-1}$ which are represent carboxylic acid (stretching), alkanes (stretching) and hydrogen-bonded alcohols (phenol).