PHYTOCHEMICAL SCREENING AND ANTIBACTERIAL ACTIVITIES OF *Garcinia mangostana* LEAVES

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ABSTRACT

PHYTOCHEMICAL SCREENING AND ANTIBACTERIAL ACTIVITIES OF *GARCINIA MANGOSTANA* LEAVES

Garcinia mangostana tree is the one of the family Clusiaceae (Guttiferae) that can be found in Thailand and other South East Asian countries. This Mangosteen (*G. mangostana*) is the one of the most best flavoured tropical fruits and it is so delicious, known as "queen of the fruits". Since many researchers have done on the fruits and pericarp, people also must know the benefit of other part like leaves. In this study, the three different types of solvent extraction were used hexane, chloroform, and methanol by using maceration technique. The process of maceration technique took three days and was repeated three times for the different solvent. Then, the rotary evaporator was used to get the crude extract. The chloroform and methanol extracts showed high percentage yield extract. Then, the phytochemical screening was done to screen the variety of compounds contained such as alkaloids, flavonoid and more. The presence of compound can be identified through the change of the colour. The antibacterial activity can be identified by using Disc Diffusion method. As a result, the methanol showed the best and strongest inhibition zone on *B. subtilis* followed by *S. aerus, E. coli* and *S. typhymurium* compared to hexane and chloroform which form only small inhibition. It shows that the methanol crude extract show the potential of antibacterial activity.