

**PHYTOCHEMICAL SCREENING AND ANTIBACTERIAL
ACTIVITY OF *GONIOTHALAMUS* SPECIES**

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ABSTRACT

PHYTOCHEMICAL SCREENING AND ANTIBACTERIAL ACTIVITY OF *GONIOTHALAMUS* SPECIES

The phytochemical screening of *Goniothalamus* species has been studied. Ground barks of *Goniothalamus* species were extracted at room temperature with hexane, chloroform and methanol solvent successively by using cool extraction method. Then, the extract was evaporated using rotary evaporator to produce crude extract. The aim of this study is to extract the plant and to perform the phytochemical screening on the crude extract, to determine the TLC profile of crudes extract using thin layer chromatography (TLC) method and to screen the antibacterial activities of crude and fractionation of plant. Antibacterial assays were tested using disc diffusion method. Phytochemical screening of compounds such as alkaloid, flavonoid, phenol, tannin and terpenoid were detected using different tests on the methanol extracts. Suitable combination of solvent system was chosen to determine the TLC profile using thin layer chromatography method that were tested on the chloroform and methanol crude. For the antibacterial activity, the bacteria that employed for gram positive bacteria were *Bacillus subtilis* and *Staphylococcus aureus* while for gram negative bacteria were *Escherichia coli* and *Salmonella sp.* Four bacteria strains against the three extracts were determined using the disc diffusion method. The highest antibacterial activity observed was methanol extract against *E. coli* with inhibited diameter 20 mm while the lowest antibacterial activity observed was hexane extract against *S. aureus* 7 mm respectively.