

**PHYTOCHEMICAL SCREENING, ANTIFUNGAL AND
ANTIBACTERIAL ACTIVITY OF METHANOL, ETHYL
ACETATE AND HEXANE EXTRACTS IN THE ROOT OF
*PITHECELLOBIUM JIRINGA***

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ABSTRACT

PHYTOCHEMICAL SCREENING, ANTIFUNGAL AND ANTIBACTERIAL ACTIVITY OF METHANOL, ETHYL ACETATE AND HEXANE EXTRACTS IN THE ROOT OF *PITHECELLOBIUM* *JIRINGA*

The aim of this study is to investigate the phytochemical screening, antifungal and antibacterial activity of methanol, ethyl acetate and hexane extracts in the root of *Pithecellobium Jiringa* (*P.jiringa*). The study on phytochemical screening was revealed the presence of important secondary metabolites which are tannins, flavonoids, terpenoids and saponins in the root hence indicating the medicinal potentials of the plant. The study was investigated on antibacterial activity with bacteria *Staphylococcus aureus* and *Staphylococcus epidermidis* while *Candida albicans* for the antifungal activity. The results showed that the methanol crude extract of the root *P.jiringa* exhibited marked antimicrobial effects on *Staphylococcus aureus*, *Staphylococcus epidermidis* and *Candida albicans*. For antibacterial activity, the highest inhibition zone of methanol extract is 15 mm at 200 mg/mL and antifungal activity is weakly inhibition at 200 mg/mL with only 8.77 mm diameter of inhibition zone. The ethyl acetate extract show no inhibition zone on the antifungal activity. From bioautography assay the compound towards *S.aureus*, *S. epidermidis* and *C. albicans* are flavonoid and tannin. This study proves that *P.jiringa* root has a potential source of active antimicrobial agents.

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