

**ANTIBACTERIAL STUDY AND
PHYTOCHEMICAL SCREENING ON
THE ROOT EXTRACT OF *Mimusops elengi***

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ABSTRACT

ANTIBACTERIAL STUDY AND PHYTOCHEMICAL SCREENING ON THE ROOT EXTRACT OF *Mimusops elengi*

Petroleum ether, chloroform and methanol extracts of *Mimusops elengi* roots were investigated for antibacterial activity against the human pathogenic bacteria *Escherichia coli* and *Staphylococcus aureus*. Five different concentrations of all three extracts consisting of 25, 50, 100, 200 and 400 µg/µl were prepared for testing antibacterial activity using disc diffusion method. The results revealed that all the three extracts showed antibacterial activity against both bacterial tested. However, petroleum ether and chloroform extracts were found to be more effective and exhibit better inhibiting activity against gram negative bacteria, *E. coli* compared to gram positive bacteria, *S. aureus*. Meanwhile methanol extract was found to be more effective and exhibit better inhibiting activity against gram positive bacteria, *S. aureus* compared to gram negative bacteria, *E. coli*. Methanol extract of *M. elengi* root also shows greater inhibition zone compared to petroleum ether and chloroform extract as phytochemical screening revealed that this extracts contain saponins and alkaloids. The highest antibacterial activity was exhibited by 400 µg/µl methanolic extracts against *S. aureus* which inhibited 14.00 ± 2.36 mm of the diameter zone. This result revealed the potentials of *M. elengi* as antibacterial agent in combating infections from human pathogenic bacteria. However, further studies, including identification and purification of the active compounds, will need to be pursued.