

**METHANOLIC EXTRACT OF *Muntingia calabura* LEAVES
& *Aloe vera* GEL AGAINST SELECTED PATHOGENIC
BACTERIA**

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ABSTRACT

METHANOLIC EXTRACT OF *Muntingia calabura* LEAVES & *Aloe vera* GEL AGAINST SELECTED PATHOGENIC BACTERIA

Muntingia calabura is the common roadside trees that had been neglected despite having medicinal values, while *Aloe vera* is the common plant used for antibacterial agent. Hence the purpose of this study is not only to identify and compare the effectiveness of antibacterial activity of both samples but also to provide ground prove of the advantages that can be taken from *Muntingia calabura* in terms of its antibacterial activity as alternative. From the study, there are significant difference of antibacterial activity between *M. calabura* and *Aloe vera* against the *E. coli*, *S.typhi*, *S. aureus* and *B. subtilis* as statistically analysis shows that $p < 0.05$. The difference in diameters of zone of inhibition obtained through the study was also significant. It was found that methanolic extract of *M. calabura* showed greater inhibitions at 100 mg/mL and 50 mg/mL as compared to the synthetic drug, streptomycin. From Table 4.1, the highest mean value obtained at 100 mg/mL for *E. coli*, *S. typhi*, *S. aureus* and *B. subtilis* respectively was 3.33 ± 5.77 mm, 12.00 ± 1.00 mm, 9.00 ± 7.81 mm, and 16.67 ± 6.03 mm whereas *Aloe vera* showed none. To conclude, *M. calabura* extract showed promising potential as antibacterial agent compared to commonly used *Aloe vera* for future drug development. It was also found that the extract was dose-dependent hence the studies can be done by using several higher dose concentrations and adding the biochemistry test to the plant extract.