ANTIOXIDANT AND ANTIBACTERIAL ACTIVITIES OF LEAVES OF *Murraya koenigii*

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ABSTRACT

ANTIOXIDANT AND ANTIBACTERIAL ACTIVITIES OF LEAVES OF *Murraya koenigii*

Murraya koenigii is well known as curry leaf come from the family of Rutaceae. Presence of alkaloid and flavonoid from this plant are effective source of antioxidant and antimicrobial on development of newer therapeutics treatment. In this study, three different solvent with different polarity which is petroleum ether, dichloromethane and methanol had been used to extract *M. koenigii* leaves using soxhlet extractor. Methanol extraction had shown the highest percentage yield with 8.1 % compared to dichloromethane and petroleum ether with 5.2 % and 4.7 % respectively. The extracts also used to measure their antioxidant and antimicrobial activity by using DPPH scavenging assay and Disc diffusion methods. The highest percentage of inhibition in antioxidant at 1000 µg/ml was showed by methanol extract with 85.3 % when compared with standard ascorbic acid followed by dichloromethane, 82.5% and petroleum ether, 84.9 %. Besides, IC_{50} value of methanol extract was 110.0 µg/ml in antioxidant activity of *M. koenigii*. Dichloromethane and petroleum ether extracts showed strong antibacterial activity against *S. thypi* with 20.0 and 23.0 mm inhibition zone respectively.