PHYTOCHEMICAL SCREENING, ANTIMICROBIAL ACTIVITY AND DETERMINATION OF TOTAL PHENOLIC CONTENTS IN *Murraya koenigii* (L.) Spreng

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ABSTRACT

PHYTOCHEMICAL SCREENING, ANTIMICROBIAL ACTIVITY AND DETERMINATION OF TOTAL PHENOLIC CONTENT IN *Murraya koenigii* (L.) Spreng

Murraya koenigii (L.) Spreng also known as curry leaves by the community in Asia and can be considered as a part of medical plants, the uses in culinary purposes and also can be used in food preservative agent. The aims of this study were to determine the bioactive chemicals in the leaves crude extract and antimicrobial activity for two types of bacteria which are *Staphylococcus aureus* and *Pseudomonas aeruginosa*. In addition, determination of total phenolic content was also important in this study. The results from this experiment showed that *Murraya koenigii* has possessed some important phytochemicals such as tannins, flavonoids, alkaloids and saponins. Besides that, in antimicrobial test, this experiment was using disk-diffusion method and interestingly, the plant extract has showed clear results as one of the antimicrobial agents. Between these two bacteria *Staphylococcus aureus* and *Pseudomonas aeruginosa*, the plant extract showed largest inhibition zone in methanol solvent extract against *S.aureus* with 80% concentration which is 0.8 mg/ml of plant extract and smallest inhibition zone in *P.aeruginosa*. Moreover, this experiment was proceed with determination of total phenolic content by using Folin-Ciocalteu method. It was found that total phenolic content in *Murraya koenigii* crude extract has significantly low which is 2.615. Nevertheless, it is proven that this plant can be used and has potential to be medicinal agents beneficial for improving the antioxidant and antimicrobial activity.