PHYTOCHEMICAL SCREENING, ANTIOXIDANT CONTENTS, ANTIMICROBIAL ACTIVITY OF *Trichosanthes cucumerina*

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TABLE OF CONTENTS

ABSTRACT

PHYTOCHEMICAL SCREENING, TOTAL PHENOLIC CONTENT AND ANTIMICROBIAL ACTIVITY OF *T. cucumerina*

Trichosanthes cucumerina or locally known as "petola ular" (snake gourd) is widely distributed in South East Asia and useful for traditional medicine or as spice. The aim of this study was to determine the presence of phytochemical compounds and to determine the total phenolic content and antimicrobial activity of *T. cucumerina*. Methanol and hexane were used as solvents. Alkaloids, phenols, tannins, saponin and flavonoids were found in the peels and fleshes of plants tested. Total phenolic content of the methanolic extracts that was determined by the Follin-Ciocalteus reagent method were found to be 1.63 ± 0.01 mg GAE/g for flesh extract and 3.48 ± 0.59 mg GAE/g for peel extract. The antimicrobial activity of crude hexane and methanolic extracts of the peel and flesh of *T. cucumerina* were evaluated by the disc diffusion techniques against Gram-positive and Gram-negative bacterial strains such as *Staphylococcus aureus* and *Salmonella typhi*. The results revealed that the peels and fleshes of *T. cucumerina* significantly inhibit the growth of *S. aureus* and *S. typhi* at different concentration of extraction. Of the two types of used, methanol extract was found to exert consistently better antimicrobial activity than hexane.