

**UNIVERSITY TEKNOLOGI MARA**

**PHYTOCHEMICAL INVESTIGATION OF**

***LEPISANTHES RUBIGINOSA***

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## ABSTRACT

*Lepisanthes* is a member of the family *Sapindaceae*. The genus is distributed widely, from tropical Africa and Madagascar, to Southeast Asia and Australia. *Lepisanthes rubiginosa* is native to Malaysia and is usually used as traditional medicine. This plant has been selected for this study due to its supposed medicinal properties. There are very little studies have been conducted. The main objective of this study is to obtain good HPLC profiles of the methanolic extract of the bark of *Lepisanthes rubiginosa*. DAD and ELSD detectors were selected to detect both UV active and UV inactive compounds. ACN and water were chosen as mobile phase. Different HPLC methods were attempted. Good HPLC profiles were generated and it was discovered that the extract contains both UV active and UV inactive compounds.

# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

Plants have been a major source of medicines for thousands of years. Types of plants and method of administration have been passed down from one generation to another through either written or oral medium. However, only in relatively recent times the isolation of the active compounds in the crude drugs has been done, leading to the discovery of drugs such as cocaine, quinine, codeine, and morphine (Balunas and Kinghorn, 2005).

Alternative and traditional medicines utilize crude herbs extensively in various therapies. Examples include Traditional Chinese Medicine, jamu, kampo, and ayurvedic medicines. In various part of the world, there are also phytotherapy, herbal therapy and homeopathy which uses crude drug from herbs and plants (Itokawa et al., 2008).

### 1.2 Problem Statement

*Lepisanthes* is a member from the family *Sapindaceae*. This genus is shared by a total of 24 species of trees and shrubs. The genus is distributed widely, from tropical Africa and Madagascar, to Southeast Asia and Australia. The plant, *Lepisanthes rubiginosa* is native to