

UNIVERSITI TEKNOLOGI MARA

**ANTIMICROBIAL ACTIVITIES OF ENDOPHYTIC
FUNGI METABOLITES**

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TABLE OF CONTENTS

	Page
TITLE PAGE	
APPROVAL FORM	
ACKNOWLEDGEMENTS	ii
TABLE OF CONTENTS	iii
LIST OF TABLES	vi
LIST OF FIGURES	vii
LIST OF ABBREVIATIONS	ix
ABSTRACT	x
CHAPTER ONE (INTRODUCTION)	1
1.1 Introduction	1
1.2 Problem statement	2
1.3 Objective of study	3
1.4 Hypothesis	3
CHAPTER TWO (LITERATURE REVIEW)	4
2.1 Background	4
2.2 Antimicrobial activity of endophytes metabolites	4
2.3 Antibiotics	5
2.3.1 Helvolic acid	5
2.3.2 Guanacastepene	6
2.3.3 Coronomycin	7
2.4 Antifungal	7
2.4.1 Cryptocandin	8
2.4.2 Cryptocin	9
2.4.3 Ambuic acid	9
2.4.4 Ecomycins	10
2.4.5 Pseudomycins	10
2.4.6 Oosporein	11
2.5 Antiprotozoal	12
2.5.1 Munumbicins	12
2.5.2 Artemisinin	13
2.6 Antiviral	13

2.6.1	Cytonic acid	13
2.6.2	Hinnuliquinone	14
CHAPTER THREE (METHODOLOGY)		15
3.1	Materials	15
3.1.1	Reagents and Chemicals	15
3.1.2	Biological materials	15
3.1.3	Instruments and Laboratory materials	16
3.2	SOP for preparation of solid agar medium	16
3.3	Inoculation of endophytic fungi in agar medium	16
3.4	SOP for extraction of solid culture medium	17
3.5	Subjection of Extract to High Performance Liquid Chromatography	18
3.6	Biological assay	18
3.6.1	Antimicrobial test (Preliminary screening)	18
3.7	SOP for HPLC analysis	20
3.7.1	Sample preparation	21
3.7.2	Mobile phase filtration	21
3.7.3	Sample analysis	21
CHAPTER FOUR (RESULT)		22
4.1	Observation	22
4.1.1	Culture on solid medium agar	22
4.2	Weight of extract	23
4.3	Analytical HPLC	24
4.3.1	Results of analytical HPLC	25
4.4	Semi-preparative HPLC	28
4.4.1	Results of analytical HPLC	28
4.4.2	Weight of culture extracts fraction	29
4.5	Biological assay	29
4.5.1	Antibacterial activity of culture extracts fractions	29
CHAPTER FIVE (DISCUSSION)		31
5.1	Fungi culture	31
5.2	Extraction	32
5.3	Analytical HPLC analysis	33
5.4	Semi Preparative HPLC	35
5.5	Biological assay	37
5.5.1	Antibacterial activity (MTT assay)	37

ABSTRACT

The rising of resistances toward present antibiotics have long been reported by many physicians, and researchers have become concern by this issue. In order to keep searching novel drugs that will be available in the future, this project research aims to contribute in collecting data from the endophytic fungi obtained from Malaysian environment (Puncak Alam forest) as part of a large drug discovery programme. The study was done to investigate the secondary metabolites produced by endophytic fungi TH2S14 and TH3R30 that can be used for medicinal plant purpose. The endophytic fungi were cultured on Potato Dextrose Agar Plate (PDA), and extracted using ethyl acetate as a solvent. Then, the fungal extracts had been subjected to analytical High performance liquid chromatography (HPLC) using a diode array detector (DAD) and proceed to Semi-preparative HPLC to collect the extract fractions. The antimicrobial activity was tested only to the fractions of fungus TH2S14 because of time constraint. From the antibacterial activity test by MTT assay, the extract fractions only showed positive result against *Enterococcus faecium* and *Escherichia coli* not to *Staphylococcus aureus* and *Pseudomonas aeruginosa* as stated in the reference. This may be due to the poor techniques of antibacterial activity test being conducted.