

MASTER'S THESIS

Molecular cloning of ribosome-inactivating proteins

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Molecular Cloning of Ribosome-Inactivating Proteins

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for the degree of
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Abstract

Two ribosome-inactivating protein (RIP) genomic clones were obtained from a *Trichosanthes kirilowii* genomic library using trichosanthin (TCS) cDNA as hybridization probe. The coding sequence of the gene was amplified by polymerase chain reaction (PCR) followed by subcloning into pUC18 plasmid vector for dideoxy DNA sequencing. Comparing our sequencing data with previously reported TCS cDNA sequence, there were 24 nucleotide residues alternation leading to 15 substitutions in amino acid residues. The gene would be subcloned into an expression vector, pKK223-3 for high level recombinant protein expression in *E. coli* under the control of *tac* promoter.

Contents

Abstract	i
Acknowledgements	ii
Abbreviations	iii
Chapter One - General Introduction	1
1.1. Introduction	1
1.2. Ribosome-Inactivating Proteins (RIPs)	1
1.3. Enzymatic Activity of RIPs	3
1.3.1. N-glycosidase Activity	3
1.3.2. Deoxyribonuclease Activity	6
1.4. Structure of Trichosanthin (TCS)	7
1.4.1. Primary Structure of TCS	7
1.4.2. Three Dimensional Structure of TCS	9
1.5. Biological Activities of TCS	14
1.5.1. Termination of Mid-term Gestation	14
1.5.2. Immunosuppression	14
1.5.3. Anti-tumor Activity	15
1.5.4. Immunotoxicity	16
1.5.5. Antiviral Activity	18
Chapter Two - Materials and Methods	23
2.1. DNA Isolation	23
2.1.1. Extraction and Purification of DNA from <i>Trichosanthes kirilowii</i>	23
2.1.2. Extraction and Purification of TCS cDNA	24

2.2. General Techniques	29
2.2.1. Mini-preparation of Recombinant Plasmid	29
2.2.2. Agarose Gel Electrophoresis	30
2.2.3. Polyacrylamide Gel Electrophoresis (PAGE)	31
2.2.4. Preparation and Transformation of Competent	32
<i>E. coli</i> cells	
2.2.5. Preparation of Nucleus Acid Probes	34
2.2.5.1. 5' End Labelling of	34
Oligonucleotides by T4	
Polynucleotide Kinase	
2.2.5.2. Random Primed Labelling	35
2.2.6. Southern Blot Analysis	36
2.2.7. Plaque Lifting	37
2.2.8. Hybridization	40
2.2.9. Purification of λ DNA by Phage Adsorbent	41
Method	
2.2.9.1. Preparation of High Titer Phage	41
Lysate	
2.2.9.2. Purification of λ DNA	41
2.2.10. Polymerase Chain Reaction (PCR)	42
2.2.11. Purification of PCR Products	43
2.2.12. Recovery of DNA Fragments from	44
Agarose Gel	
2.2.13. Subcloning of PCR Products into	45
pUC18 Vector	
2.2.14. Dideoxy DNA Sequencing	46

Chapter Three - Results and Discussion	51
3.1. Introduction	51
3.2. Cloning Strategies	53
3.2.1. Plaque Hybridization	53
3.2.2. Direct Screening of Phage Libraries by Polymerase Chain Reaction (PCR)	58
3.2.3. Direct Cloning of RIPs from Genomic DNA	62
3.2.4. Subcloning the Inserts of Genomic Clones into pUC18 Vector	63
3.3. Sequencing Strategies	68
3.4. Sequence Analysis of the New RIP Genes	70
3.5. Conclusion	86
Appendix	87
References	94
Vita	102