

TABLE OF CONTENTS

COVER TITLE PAGE.....	i
FRONT COVER.....	ii
VALIDATION PAGE	iii
PREFACE	iv
TABLE OF CONTENTS	vi
LIST OF SYMBOL AND ABBREVIATION	viii
LIST OF TABLES.....	x
LIST OF FIGURES	xi
LIST OF ATTACHMENT.....	xii
ABSTRACT	xiii
INTISARI.....	xiv
CHAPTER I	1
A. Background.....	1
B. Research Problems	3
C. Research Objectives.....	3
D. Research Benefits.....	4
CHAPTER II. LITERATURE REVIEW AND HYPOTHESIS	5
A. Literature Review.....	5
1. Arabica Coffee (<i>Coffea arabica</i> L.)	5
2. <i>C. arabica</i> var. <i>caturra</i>	7
3. Somatic Embryogenesis.....	8
4. Plant Growth regulators (Auxin and Cytokinin)	11
5. <i>RKD4</i> Gene Function and Structure	12
6. PCR and PCR-RFLP Analysis	14
B. Hypothesis	16
CHAPTER III. METHODOLOGY	17
A. Time and Place	17
B. Materials	17
C. Equipment	17
D. Method.....	18
1. MS Medium Preparation.....	18
2. <i>C. arabica</i> var. <i>caturra</i> Explant Sterilization	18
3. Somatic Embryogenesis Induction	19
4. DNA Isolation	19
5. PCR Amplification	21

6. PCR-RFLP Analysis.....	22
E. Data Analysis	23
CHAPTER IV. RESULTS AND DISCUSSION	24
A. Somatic Embryogenic Callus Induction	24
B. Molecular Characterization of <i>RKD4</i>	31
C. PCR-RFLP Analysis.....	37
CHAPTER V. CONCLUSION AND SUGGESTION	40
A. Conclusion	40
B. Suggestions	40
REFERENCES	41
ATTACHMENTS.....	45