

## TABLE OF CONTENT

<b>COVER</b>	<b>i</b>
<b>CERTIFICATION PAGE</b>	<b>ii</b>
<b>CERTIFICATE OF ORIGINALITY</b>	<b>iii</b>
<b>DEDICATION</b>	<b>iv</b>
<b>ACKNOWLEDGEMENTS</b>	<b>v</b>
<b>TABLE OF CONTENTS</b>	<b>vii</b>
<b>LIST OF FIGURES</b>	<b>ix</b>
<b>LIST OF TABLES</b>	<b>x</b>
<b>ABSTRACT</b>	<b>xi</b>
<b>INTISARI</b>	<b>xii</b>
<b>CHAPTER I INTRODUCTION</b>	<b>1</b>
I.1 Background	1
I.2 Research Aims	5
I.3 Research Benefits	5
<b>CHAPTER II LITERATURE REVIEW AND HYPOTHESIS FORMULATION</b>	<b>6</b>
II.1 Literature Review	6
II.1.1 Food adulteration and halal authentication	6
II.1.2 Corned	9
II.1.3 Polymerase Chain Reaction (PCR)	9
II.1.4 Agarose gel electrophoresis	20
II.1.5 UV spectrophotometry	21
II.2 Hypothesis and Research Design	21
II.2.1 Hypothesis formulation 1	21
II.2.2 Hypothesis formulation 2	22
II.2.3 Hypothesis formulation 3	22
II.2.4 Research Design	22
<b>CHAPTER III RESEARCH METHOD</b>	<b>24</b>
III.1 Materials	24
III.2 Equipment	24
III.3 Procedures	25
<b>CHAPTER IV RESULTS AND DISCUSSIONS</b>	<b>29</b>
IV.1 DNA Isolation of Corned using NucleoSpin Food Column	29
IV.2 Analysis Qualitative and Quantitative of the Isolated DNA	31

IV.2.1	Qualitative test of DNA extract using agarose gel electrophoresis	31
IV.2.2	Quantitative test of DNA extract using UV Spectrophotometry	34
IV.3	Amplification of ND5 genes by Polymerase Chain Reaction (PCR)	35
IV.3.1	Specificity test	38
IV.3.2	Determination of cut off limit	39
IV.4	Application of Method	40
<b>CHAPTER V</b>	<b>CONCLUSIONS</b>	<b>44</b>
V.1	Conclusions	44
V.2	Suggestion	44
	<b>REFERENCES</b>	<b>45</b>
	<b>APPENDIX</b>	<b>52</b>