

**ANALYSIS OF THE TOTAL PHENOLIC
CONTENT FROM DIFFERENT SPECIES OF GRAPES BY
USING PULP AND SKIN IN TWO DIFFERENT SOLVENTS;
WATER AND METHANOL**

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**Final Year Project Report Submitted in
Partial Fulfilment of the Requirements for the
Degree of Bachelor of Science (Hons.) Chemistry
In the Faculty of Applied Sciences
Universiti Teknologi MARA**

JULY 2016

APPROVAL SHEET

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TABLE OF CONTENTS

| | Page |
|--|-------------|
| ACKNOWLEDGEMENTS | i |
| TABLE OF CONTENTS | ii |
| LIST OF TABLES | iv |
| LIST OF FIGURES | v |
| LIST OF ABBREVIATIONS | vi |
| ABSTRACT | vii |
| ABSTRAK | viii |
| | |
| CHAPTER 1 INTRODUCTION | 1 |
| 1.1 Background of Study | 1 |
| 1.2 Problem Statement | 4 |
| 1.3 Objectives of Study | 5 |
| 1.4 Significance of Study | 5 |
| | |
| CHAPTER 2 LITERATURE REVIEW | 6 |
| 2.1 Grapes | 6 |
| 2.1.1 Red grapes | 7 |
| 2.1.2 Green grapes | 8 |
| 2.1.3 Black grapes | 9 |
| 2.2 Phenolic Compound | 10 |
| 2.2.1 Phenolic acids | 11 |
| 2.2.2 Flavonoids | 13 |
| 2.3 Folin-Ciocalteu Method | 14 |
| 2.4 Method validation | 16 |
| 2.4.1 Linearity and Calibration | 16 |
| 2.4.2 Limit of Detection and Limit of Quantification | 16 |
| 2.4.3 Laboratory Fortified Blank and Laboratory Reagent Blank | 17 |
| 2.4.4 Precision | 18 |
| | |
| CHAPTER 3 METHODOLOGY | 19 |
| 3.1 Materials | 19 |
| 3.1.1 Raw materials | 19 |
| 3.1.2 Chemicals and materials | 19 |
| 3.1.3 Instrumentation | 19 |

| | | |
|---|---|-----------|
| 3.2 | Methods Preparation | 20 |
| 3.2.1 | Sample Preparation | 20 |
| 3.2.2 | Analysis of Total Phenolic Content | 20 |
| 3.2.3 | Preparation of Standard Solution | 21 |
| 3.2.4 | Preparation of Laboratory Reagent Blank | 21 |
| 3.2.5 | Preparation of Laboratory Fortified Blank | 21 |
| CHAPTER 4 RESULT AND DISCUSSIONS | | 22 |
| 4.1 | Calibration curve of gallic acid standard | 22 |
| 4.2 | Limit of Detection and Limit of Quantification | 24 |
| 4.3 | Laboratory Reagent Blank and Laboratory Fortified Blank | 26 |
| 4.4 | Precision | 28 |
| 4.5 | Quantification of total phenolic content (TPC) | 29 |
| CHAPTER 5 CONCLUSION AND RECOMMENDATIONS | | 32 |
| CITED REFERENCES | | 34 |
| APPENDICES | | 42 |
| <i>CURRICULUM VITAE</i> | | 46 |

ABSTRACT

ANALYSIS OF THE TOTAL PHENOLIC CONTENT FROM DIFFERENT SPECIES OF GRAPES BY USING PULP AND SKIN IN TWO DIFFERENT SOLVENTS; WATER AND METHANOL

Nowadays, study in total phenolic content from natural products has been actively carried out. As a raw material, different species of grapes was chosen. This study was designed to analysis of the total phenolic content from different species of grapes by using pulp and skin in two different solvents; water and methanol. The total phenolic content was determined by using the Folin Ciocalteu assay. Gallic acid was selected as the standard in order to determine the calibration curve of TPC. The grapes were extracted with methanol according to ratio 4:6 while the others grapes were extracted with distilled water and both flasks were incubated in 30 minutes for further analysis. The experiment was conducted in UiTM Negeri Sembilan laboratory by using UV-visible spectrophotometer. From this study, it indicated that black grapes species contain the highest value of TPC which is 8.963 mg GAE/L than red and green grape varieties in all parts of grapes studied. Methods validation is also evaluated under the factor of linearity and calibration, limit of detection, limit of quantification, laboratory fortified blank, laboratory reagent blank and precision. For the gallic acid calibration curve, the linear coefficient obtained is 0.9999 which is absorbance is directly proportional to the concentration. The value of LOD, LOQ, LRB and LFB is 0.069 ppm, 0.076 ppm, 3.1123 mg GAE/L \pm 0.6655 and 19.9790 mg GAE/L \pm 0.7185. Besides that, the percentage of precision achieved was 119.1% which indicated that the results was in the favorable range.