

**ISOLATION OF DNA FROM FROZEN FOOD PRODUCTS AND
CHOCOLATE CONFECTIONERIES**

MUHAMAD SYAZWAN YASSIN BIN MD. SOM

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ABSTRACT

ISOLATION OF DNA FROM FROZEN FOOD PRODUCTS AND CHOCOLATE CONFECTIONERIES

Certain food matrices in the market, especially which derived from living things contain hereditary material namely as deoxyribonucleic acid or DNA. Every species have DNA that only specific and unique to them. Consequently, the DNA can be used to identify the species that used as the ingredient in food products. Advancement in food processing technology nowadays improves the resistance to oxidation in the raw materials used, at the cost of shearing and fragmenting of the DNA in the food. In this study, the aims are to isolate the DNA and determine the extracted DNA quality and size using gel electrophoresis from different types of frozen and chocolate confectioneries food products. The isolation of DNA was performed by using DNeasy® Blood and Tissue Kit (QIAGEN, Germany) with modified procedures cited from the recent research. As for the results, it showed that in the 9 food products tested, 5 yielded positive DNA products on the gel electrophoresis. To conclude, the isolation of DNA in processed food product requires several optimization and improvisation in the procedures in order to obtain satisfactory yield of the DNA.