

**ANTIOXIDANT AND TOXICITY STUDY OF FIVE SELECTED FRUIT'S
PEELS IN KUALA PILAH**

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ABSTRACT

ANTIOXIDANT AND TOXICITY STUDY OF FIVE SELECTED FRUIT'S PEELS IN KUALA PILAH

A research was conducted on five different fruit's peels in Kuala Pilah which are watermelon (*Citrullus lanatus*), dragon fruit (*Hylocereus polyrhizus*), honey dew (*Cucumis melo.L*), papaya (*Carica papaya*), and banana (*Musa acuminata*). The aim of the study is to determine and compare the antioxidant properties of the five selected fruit's peels. The antioxidant properties was determine by using the DPPH assay which have potential to be used in pharmaceutical industry and benefit human health. The samples were extracted by using sonicator. Then, all the crude peels extract were screening for antioxidant activity. The highest percentage of scavenging activity was showed by the papaya (91.37%), followed by watermelon (82.43%), honey dew (76.81%), banana (60.79%) and dragon fruit (60.79%). Then, all these fruit's extract were further tested to investigate the toxicity level by using brine shrimp lethality assay and also determination of lethal concentration, LC_{50} as a standard toxicity indicator. Fruit's peels that showed highest lethal concentration effected in 24 hour was papaya (2.071 mg/ml), followed by honeydew (2.026 mg/ml), watermelon (1.944 mg/ml), banana (1.884 mg/ml) and dragon fruit (1.166 mg/ml). These fruit's peels show no toxicity characteristic since the LC_{50} was higher that 1 mg/ml. From overall findings, the studies shows that all of these fruit's peels might have potential sources of raw material since it has high antioxidant with non-toxicity properties for producing product in food industry such as chips.