

UNIVERSITI TEKNOLOGI MARA

**CYTOTOXICITY STUDY OF BANANA SOFT PITH
(*MUSA ACUMINATA*) TOWARDS COLORECTAL
(HCT116) AND BREAST CANCER (MCF7) CELL
LINES**

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ABSTRACT

Banana is originated from the *Musaceae* family that highly produced in the tropical and sub-tropical regions of the world especially in Asia. Banana soft pith (BSP) is located inside the core of banana stem that fibrous in texture. Recently studies showed BSP were rich in nutrients and chemical compounds such as protein, fat, fibre, lignin, cellulose. BSP also high contents of antioxidant properties such as flavanoids and polyphenols. This study is focusing on the screening of antiproliferative effect of BSP aqueous extract against the HCT116 and MCF7 cell lines by using the MTT assay to observe the IC_{50} at different period of treatment (24,48 and 72 hour). The results showed, IC_{50} for HCT116 after 72 hours treatment was 220 μ g/ml while IC_{50} for MCF7 after 72 hours treatment was 260 μ g/ml. Lowest IC_{50} on HCT116 than MCF7 shows BSP extracts showed good antiproliferative effect towards HCT cell lines. In conclusion the study has showed almost similar cytotoxic effect against both cells in time and concentration dependant manner. Recommendation for further studies about the mode of cell death and phytochemical properties that exhibit the cytotoxic effects of BSP aqueous extract.