

Anti-proliferative effects of pandan leaves (*Pandanus amaryllifolius*), kantan flower(*Etlingera elatior*) and turmeric leaves (*Curcuma longa*).

ABSTRACT

Purpose – The purpose of this paper is to screen cytotoxic activities of commonly used culinary plants in Malaysia, *Pandanus amaryllifolius* (daun pandan), *Curcuma longa* (turmeric leaves) and *Etlingera elatior* (kantan flower) against selected cancer cell lines. Design/methodology/approach – Plant samples were extracted exhaustively with ethanol and concentrated under rotary evaporator. Cytotoxic evaluation was carried out with plant extracts(0-100mg/ml) using 72-h MTT assay. Findings – Exposure of plant extracts reduced cell viability of HepG2 (hepatocellular carcinoma), HT-29 (colon carcinoma), MDA-MB-231 (non-hormone-dependent breast cancer), MCF-7(hormone-dependent breast cancer) and HeLa (cervical cancer); 50 percent inhibitory values (IC₅₀) were obtained for MDA-MB-231, HepG2, HT-29. Extracts within the concentrations of 10-100mg/ml were found not to be effective against proliferation of MCF-7 and HeLa.

Keyword: *Curcuma longa*; Cytology; Cytotoxic effect; *Etlingera elatior*; Malaysia; MTT assay; *Pandanus amaryllifolius*; Plants.