

UNIVERSITI TEKNOLOGI MARA

**CYTOTOXIC ACTIVITY OF MYRICETIN AND
MAHANIMBINE AGAINST A BRAIN CANCER
CELL LINE (U251) AND A NORMAL CELL LINE
(WRL68)**

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ABSTRACT

Chemotherapy has become the common treatment choice in treating cancer even it can caused undesired side effect towards the patient as well as the health care handler. Thus, a lot of studies has been conducted to discover new and more selective anticancer. Plants are one of the most potential sources in finding anticancer. Numerous drugs are marketed as anticancer drugs, hence plant have been known as a familiar sources for development of new anticancer. The present study was carried out to determine the cytotoxicity and selectivity of plant-derived compounds myricetin and mahanimbine against human glioma cell lines (U251) and human normal cell line (WRL68). Both compounds were tested for cytotoxicity against U251 and WRL68 cell lines by using the MTT assay. The IC_{50} of both compounds were derived from the dose-response curve. In this study, both of the compounds exhibited strong cytotoxic activity against U251 with IC_{50} of 2.52 μ g/ml and 3.98 μ g/ml respectively. Thus, compound, myricetin and mahanimbine were found to be potent against WRL68 as well, with IC_{50} of 2.91 μ g/ml and 4.03 μ g/ml respectively. Thus, advance studies to be needed in modifying the chemical structures of both compounds in order to reduce its toxicity towards normal cell but at the same time maintaining the effectiveness as good cytotoxic agents.