

Typhonium Flagelliforme (Keladi Tikus)

Typhonium flagelliforme can be easily found in the Indonesian forest. It has been used for treating internal injuries and edema. The rhizomes of the plant have traditionally been used as an expectorant for coughs and as treatment for other pulmonary ailments. In the Philippines, the floral inflorescence is used to arrest bleeding and help in wound healing (Perry, 1980).

The plant was found to possess anti-cancer properties in early 1990s (Neoh, 1992) but until today it has not been used officially as anti-cancer remedy because the active compounds have not been discovered. However, this plant has been used extensively as one of the components of traditional herb for combating breast, lung, colon and liver cancer (Teo and C'hing, 1996). Itokawa and Takeya (1993) discovered that extracts of the fresh roots, rhizomes, stems and leaves of *T. flagelliforme* had cytotoxic activity against P388 cells.

Figure 5: Mass propagation of Typhonium flagelliforme using 5-liter aerated jar

A micropropagation technique has been established for this plant (Su et al., 2000). A propagating medium formulated for mass production has enabled us to mass produce the invitro plantlets within four weeks using total immersion system. Comparatively, the mother plants that grow in the natural habitat take at least 12 weeks before they can be considered as beneficial for traditional herb preparation (Chan et al, 2000) (Fig. 5).

The in-vitro plantlets have been tested in our laboratory to be effective against the tumour cells of mammary glands, lung and liver. Hence, the current propagation system could then be used as a method for mass production of *Typhonium flagelliforme* and this will ensure the constant supply of these medicinal plants and plant materials (Chan and Koh, 2002).

Source: Chan Lai Keng, PhD, Universiti Sains Malaysia

Cytotoxins

Substances that are toxic to cells; they may be involved in immunity or may be contained in venoms. These are distinguished from CYTOSTATIC AGENTS in degree of effect. Some of them are used as CYTOTOXIC ANTIBIOTICS. The mechanism of action of many of these are as ALKYLATING AGENTS or MITOSIS MODULATORS.

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