

Evaluation of biological activities of *Alpinia mutica* Roxb. and its chemical constituents

ABSTRACT

Phytochemicals investigation on rhizomes of *Alpinia mutica* has afforded five compounds namely 5,6-dehydrokawain (1), flavokawin B (2), pinostrobin (3) and pinocembrin (4) together with β -sitosterol (5). All crude extracts of the plant demonstrated strong cytotoxicity against CEMss (human T4 lymphoblastoid) cancer cells with IC₅₀ values less than 19 μ g/mL, while flavokawin B (2) was the most cytotoxic isolate with IC₅₀ value 1.86 ± 0.37 μ g/mL. Most of the crude extracts and isolated compounds showed weak activity in antimicrobial and diphenylpicrylhydrazyl (DPPH) radical scavenging activity tests.

Keyword: *Alpinia mutica*; CEMss; Flavokawin; Antimicrobial; DPPH