

Chemical constituents and bioactivities of *Kaempferia rotunda* L.

ABSTRACT

Phytochemical study on the rhizomes of *Kaempferia rotunda* originated from Yogyakarta, Indonesia has led to the isolation of crotepoxide, benzoic acid, tetracosanoic acid, β -sitosterol and stigmasterol. Tetracosanoic acid and benzoic acid have never been reported for this species previously. Bioactivity studies on the extracts and isolated compound (crotepoxide) were carried out. Extracts and crotepoxide from *K. rotunda* were not active against HL-60 (human promyelocytic leukemic) cell line in cytotoxic testing. However, the non-polar extract demonstrated moderate inhibition in antimicrobial assay whereas in FTC antioxidant testing, all extracts exhibited strong activity as compared to vitamin E.

Keyword: *Kaempferia rotunda*; Zingiberaceae; Antioxidant; Antimicrobial.