

Antiproliferative Activity of Xanthenes Isolated from *Artocarpus obtusus*.

ABSTRACT

An investigation of the chemical constituents in *Artocarpus obtusus* species led to the isolation of three new xanthenes, pyranocycloartobiloxanthone A (1), dihydroartoinonesianin C (2), and pyranocycloartobiloxanthone B (3). The compounds were subjected to antiproliferative assay against human promyelocytic leukemia (HL60), human chronic myeloid leukemia (K562), and human estrogen receptor (ER+) positive breast cancer (MCF7) cell lines. Pyranocycloartobiloxanthone A (1) consistently showed strong cytotoxic activity against the three cell lines compared to the other two with IC 50 values of 0.5, 2.0 and 5.0 $\mu\text{g/mL}$, respectively. Compound (1) was also observed to exert antiproliferative activity and apoptotic promoter towards HL60 and MCF7 cell lines at respective IC 50 values. The compound (1) was not toxic towards normal cell lines human nontumorigenic breast cell line (MCF10A) and human peripheral blood mononuclear cells (PBMCs) with IC 50 values of more than 30 $\mu\text{g/mL}$.

Keyword: Antiproliferative Activity; Xanthenes; *Artocarpus obtusus*.