Artosimmin: potential anti-cancer lead compound from Artocarpus odoratissimus

ABSTRACT

Our recent study on Artocarpus odoratissimus (Moraceae) has resulted in the purification of a new prenylated pyranoflavone derivative artosimmin (1) and traxateryl acetate (2). Details of structural elucidations associated with 1 and 2 are reported by combining 1D, 2D NMR and mass spectrometric methods. Compound 2 is obtained for the first time from this species. Furthermore, the biological assay results exhibited compound 1 to be significantly cytotoxic against cancer cell lines (HL-60 & MCF-7) and also possessed antioxidant properties toward 1,1-diphenyl-2-picrylhydrazyl radical (DPPH).

Keyword: Artocarpus odoratissimus; Moraceae; Pyranoflavone; Triterpenoid; Cytotoxicity; Antioxidant