

Antiproliferative cardiac glycosides from the latex of *Antiaris toxicaria*.

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Abstract

Phytochemical investigation of the latex of *Antiaris toxicaria* resulted in the isolation of 15 new [antiarosides J-X (1-15)] and 17 known cardiac glycosides. The effects of the cardiac glycosides on apoptosis and the expression of orphan nuclear receptor Nur77 were examined in human NIH-H460 lung cancer cells. Several of the cardiac glycosides induced apoptosis in lung cancer cells, which was accompanied by induction of Nur77 protein expression. Treatment of cancer cells with the cardiac glycosides resulted in translocation of the Nur77 protein from the nucleus to the cytoplasm and subsequent targeting to mitochondria. The results show that the cardiac glycosides exert their apoptotic effect through the Nur77-dependent apoptotic pathway.

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