



## Antiproliferative Activity of Leaf Extract and a Flavonoid Glycoside from *Jatropha curcas*

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**SUMMARY.** In this study, *in vitro* experiments were conducted on human epidermoid carcinoma A431 and melanoma A375 cells to determine the antiproliferative effect of phenolic-rich extract from *Jatropha curcas* leaves. Tumor growth inhibition rates on A375 and A431 were 41.2-80% and 43.6-73.7%, respectively, when exposed to 100 µg/mL of extract. A pure compound from the extract was obtained, identified as isoschaftoside, that showed moderate antiproliferative effect on A375 cells. Our work has demonstrated the strong cytotoxic effect of phenolic-rich extract from *Jatropha curcas* leaves and is the first time that isoschaftoside has been identified in this plant. This compound was found to have cytotoxic effect, but less pronounced than that of the extract as a whole. This may be indicative of important cytotoxic activities of other compounds within the extract as well as synergic effects among them.

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**KEY WORDS:** Antiproliferative, A375, A431, Flavonoid glycoside, *Jatropha curcas*, Polyphenolic extract, Preparative high performance liquid chromatography (PHPLC).

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