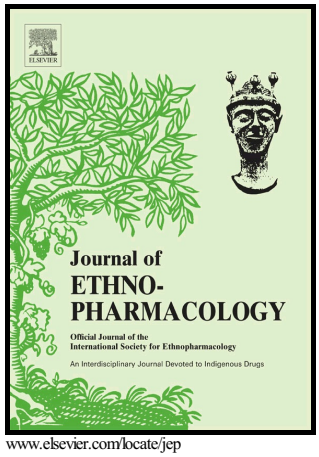

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PII: S0378-8741(16)31218-1
DOI: http://dx.doi.org/10.1016/j.jep.2016.10.030
Reference: JEP10488

To appear in: *Journal of Ethnopharmacology*

Received date: 3 March 2016
Revised date: 29 September 2016
Accepted date: 7 October 2016

Cite this article as: Peter M Waziri, Rasedee Abdullah, Swee Keong Yeap, Abdul Rahman Omar, Ahmad Bustamam Abdul, Nur Kartinee Kassim, Ibrahim Malami, Thiruventhan Karunakaran and Mustapha Umar Imam, Clausenidin from *Clausena excavata* induces apoptosis in hepG2 cells via the mitochondrial pathway, *Journal of Ethnopharmacology* http://dx.doi.org/10.1016/j.jep.2016.10.030

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Abstract

Ethnopharmacological relevance

Clausena excavata Burm.*f*. is used locally in folk medicine for the treatment of cancer in South East Asia.

Aim of the study

To determine the mechanism action of pure clausenidin crystals in the induction hepatocellular carcinoma (hepG2) cells apoptosis.

Materials and methods

Pure clausenidin was isolated from *Clausena excavata* Burm.*f*. and characterized using ^{1}H and ^{13}C NMR spectra. Clausenidin-induced cytotoxicity was determined by MTT assay. The morphology of hepG2 after treatment with clausenidin was determined by fluorescence and Scanning Electron Microscopy. The effect of clausenidin on the apoptotic genes and proteins were determined by real-time qPCR and protein array profiling, respectively. The