

## Publication

Anthelmintic activity and cytotoxic effects of compounds isolated from the fruits of *Ozoroa insignis* del. (Anacardiaceae)

## JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)

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*Ozoroa insignis* Del. is an ethnobotanical plant widely used in traditional medicine for various ailments, including schistosomiasis, tapeworm, and hookworm infections. From the so far not investigated fruits of *Ozoroa insignis*, the anthelmintic principles could be isolated through bioassay-guided isolation using *Caenorhabditis elegans* and identified by NMR spectroscopic analysis and mass spectrometric studies. Isolated 6-[8(Z)-pentadecenyl] anacardic (1), 6-[10(Z)-heptadecenyl] anacardic acid (2), and 3-[7(Z)-pentadecenyl] phenol (3) were evaluated against the 5 parasitic organisms *Schistosoma mansoni* (adult and newly transformed schistosomula), *Strongyloides ratti*, *Heligmosomoides polygyrus*, *Necator americanus*, and *Ancylostoma ceylanicum*, which mainly infect humans and other mammals. Compounds 1-3 showed good activity against *Schistosoma mansoni*, with compound 1 showing the best activity against newly transformed schistosomula with 50% activity at 1 µM. The isolated compounds were also evaluated for their cytotoxic properties against PC-3 (human prostate adenocarcinoma) and HT-29 (human colorectal adenocarcinoma) cell lines, whereby compounds 2 and 3 showed antiproliferative activity in both cancer cell lines, while compound 1 exhibited antiproliferative activity only on PC-3 cells. With an IC<sub>50</sub> value of 43.2 µM, compound 3 was found to be the most active of the 3 investigated compounds.

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