

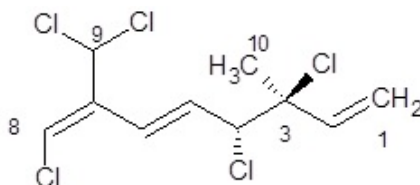
3,4-erythro-7-dichloromethyl-3-methyl-3,4,8-trichloro-1,5E,7E-octatriene is an important Namibian cytotoxic lead compound

Dear Editor,

I was recently surprised to discover that the major metabolite found in *Plocamium cornutum* in South Africa has already been synthesised and tested for cytotoxic activity (Antunes et al., 2011; El Gaafary et al., 2019; Vogel et al., 2014). This polyhalogenated monoterpene induces cell cycle arrest and apoptosis in breast cancer cells and confirms what I have always believed, and that is that *Plocamium* polyhalogenated monoterpenes and synthetic analogues deserve further exploration as promising anticancer lead compounds.

The selectivity of this compound, together with that of the famed Halomon, was tested for different solid tumor cell lines with respect to the CCRF-CEM leukemia cell lines according to the disk diffusion assay. The selectivity of the two compounds were similar in many respects, however Halomon had an IC_{50} ($\mu\text{g}/\text{mL}$) of 0.37 versus 1.3 for 3,4-erythro-7-dichloromethyl-3-methyl-3,4,8-trichloro-1,5E,7E-octatriene (Vogel et al., 2014). In addition, 3,4-erythro-7-dichloromethyl-3-methyl-3,4,8-trichloro-1,5E,7E-octatriene was also evaluated for cytotoxic effects on an esophageal cancer cell line (WHCO1) and had an IC_{50} (μM) of 8.5, which is greater cytotoxicity in this assay compared to the known anticancer drug cisplatin, which had an IC_{50} (μM) of 13 (Antunes et al., 2011).

Using nuclear magnetic resonance and mass spectrometry, I was also excited to find that this compound is also the major metabolite found in Namibian *Plocamium cornutum* species. It is relatively easy to isolate in reasonably good quantities using only liquid-liquid partition separation techniques. In addition, the surprising yields enable numerous additional *in vitro* or *in vivo* testing to be carried out on this compound here in Namibia.



3,4-erythro-7-dichloromethyl-3-methyl-3,4,8-trichloro-1,5E,7E-octatriene

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