

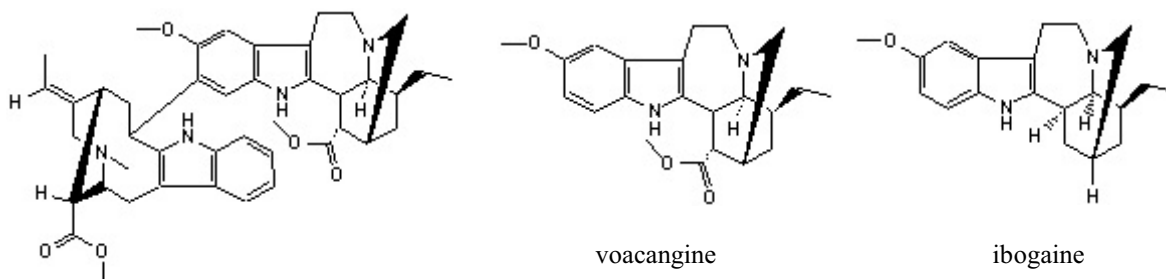
Drug Status Report

Drug: Voacamine

Drug Name Status: Voacamine is the common name.

Chemical Name: 12-methoxy-13-((3 α)-17-methoxy-17-oxovobasan-3-yl)ibogamine-18-carboxylic acid methyl ester

Chemical structure:



Molecular Formula: C₄₃H₅₂N₄O₅

CAS RN: 3371-85-5

Pharmacological class / Application: Bisindole alkaloid

International status:

US: The substance is not currently listed on the US Controlled Substances Act and is not mentioned on the DEA website.

United Nations: The substance is not listed on the Yellow List - List of Narcotic Drugs under International Control nor the Green List - List of Psychotropic Substances under International Control.

Canadian Status: Voacamine is a bisindole alkaloid found in a number of plants such as *Voacanga africana*^{1,2} and *Psechiera fuschiaefolia*³. Reports in the scientific literature suggest that

¹Kikura-Hanajiri, R., *et al.* (2009) Chemical and DNA analyses for the products of a psychoactive plant, *Voacanga Africana*, *Yakugaku Zasshi*, **129**:975-982.

²Buchi, G. *et al.* (1964) Vocamine and voacorine, *J. Am. Chem. Soc.* **86**:4631-4641.

³Meshini, S. *et al.* (2005) Voacamine, an alkaloid extracted from *Peschiera fuchsiaefolia*, inhibits P-glycoprotein action in multi-drug resistant tumor cells, *Int. J. Oncol.* **27**:1597-1603.

voacamine displays *in vivo* antiplasmodial activity, useful in the treatment of malaria⁴, and enhances the cytotoxic effects of chemotherapeutic agents on multi-drug resistant tumor cells by inducing autophagy³.

Voacamine is not currently listed in the Schedules to the CDSA and is not similar to any of the substances listed in the Schedules to the CDSA. It is noteworthy that the acidic cleavage of voacamine produces voacangine, which is similar in structure to ibogaine. Ibogaine is reported to display hallucinogenic properties and is also found in *Voacanga africana*. Ibogaine is a controlled substance in the US and is listed under Schedule I to CSA. However, in Canada, ibogaine is not considered to be a controlled substance.

Recommendation: Voacamine is not included in the Schedules to the CDSA and is not a controlled substance.

June 23rd 2010

⁴Lepine, F. *et al.* (2002) Liquid chromatographic/mass spectrometric determination of biologically active alkaloids in extracts of *Peschiera fushiaefolia*, J. Mass Spectrom. **37**:216-222.