118. ANTIPROTOZOAL ACTIVITY OF DEHYDROZALUZANIN C A SESQUITERPENE LACTONE ISOLATED FROM MUNNOZIA MARONII (ASTERACEAE)

Muñoz, V.*, Fournet, A.**, Roblot, F.***, Hocquemiller, R.***, & Cave, A. ***

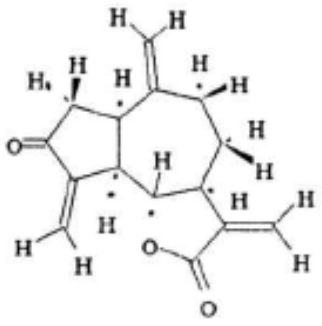
* Instituto Boliviano de Biología de la Altura (IBBA), CP 717, La Paz, Bolivia

** Institut Francais de Recherche Scientifique pour le Développement en Coopération (ORSTOM), Département Santé, 213. rue La Fayette, 75480 Paris, Cedex 10, France

*** Laboratoire de Pharmacognosie, associé au CNRS, Faculté de Pharmacie, Université Paris XI, 92296 Chatenay-Malabry, Cedex, France

Petroleum ether extract of leaves of Munnozia maronii was found to inhibit in vitro the grouth of promastigote forms of Leishmania and epimastigote forms of Trypanosoma cruzi at a concentration of 25 µg ml^{-1}. Activity guided fractionation of the extract by chromatography afforded the sesquiterpene lactone 1 of the guaiane series.

The complete structure of 1 was elucidated using ^{1}H and ^{13} CNMR experiments at high field. The isolated compound was proved to be a new natural guaianolid, dehydrozaluzanin C, previously known as syn-thetic oxidative derivative of zaluzanin C. This compound inhibited in vitro the growth of twelve strains of Leishmania and fifteen strains o f T. cruzi at concentrations between 50 and 2,5 µg ml^{-1}. The leishmanicidal activity of dehydrozaluzanin C was tested on Balb/c mice infected with amastigote forms of Leishmania amazonensis. Dehydrozaluzanin C reduced the severity of L. amazonensis lesions in Balb/c but was less active than the reference compound Glucantime.



Dehydrozaluzanin C