



Cytotoxic activity in vitro of *Passiflora mucronata*

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Abstract: *Passiflora* species shows many metabolites. One of these is triterpenes. The *Passiflora* genus belongs to Passifloraceae family and in the majority this genus have in its composition a lot of glycosylated triterpene [1]–[5]. The aim of this study is to show the cytotoxic results of the compounds isolated in *Passiflora mucronata*, one species never chemically studied before. Two different extracts were prepared from the leaves of *P. mucronata*. One was maceration, using ethanol and water (9:1). The gradient stayed in contact with 50.4 g of triturated leaves. The extract was concentrated and lyophilized, then partitioned with different solvents (hexane -16.38%; dichloromethane-7.65%; ethyl acetate-1.93%; butanol-20.49%; residual aqueous fraction - 37.36%). The second extraction was made by Supercritical fluid extraction. The extraction was made in conditions to isolate non-polar compounds, usually used to isolate terpenoid compounds [6]. The cytotoxic experiment was realized by MTT (3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide) and crystal violet with cell line B16F10, in 96 wells plate. Was used as positive standard cisplatin. The fractions were tested in the following concentrations: 120, 90, 60, 45, 30, 10 µg/ml. The cisplatin and the compounds isolated were tested in the following concentrations: 100, 50, 25, 12.5, 6.75, 3.3, 1.65, 0.8, 0.3 µM. NMR, 1D and 2D, in NMR spectrometer Varian MERCURY-VX 400 spectrometer, made the identification of the compounds. The compounds identified obtained by hexanic fraction, are β-amyryl [7], β-sitosterol and Stigmasterol in mix [8] and Oleanolic acid [9]. Stigmasterol and Cisplatin shows IC₅₀ = 61% to crystal violet and 42%, and for mtt, 8% and 5% respectively. The hexane fraction that origin these compounds shows a IC₅₀ of 34.84%.

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