

**ANTIFUNGAL ACTIVITY OF ETHANOLIC AND ALKALOIDAL EXTRACTS
OF *Genista monspessulana* AGAINST *Fusarium oxysporum***

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Abstract:

Alkaloids usually protect plants against herbivorous attacks and pathogen colonization. This kind of compounds is commonly present in leaves of plants in the Fabaceae family, so the presence of numerous quinolizidine alkaloids is reported for *Genista* genus. The aim of present study was to assess antifungal activity of unfractionated ethanolic and alkaloidal extracts of leaves of five individuals (collected at different locations in Bogotá plateau) of *Genista monspessulana* (Fabaceae) using different concentrations (10 µg/µL, 1.0 µg/µL and 1.0 µg/µL) against *Fusarium oxysporum*, which is responsible for a large number of lost crops worldwide. The alkaloidal extracts exhibited a better antifungal activity through mycelial growth inhibition at different levels following a dose-response behavior than ethanolic extracts. The ethanolic extract was profiled by HPLC-MS and the alkaloids profile was recorded by GC-MS. These analyses let to identify that the extracts are rich in caulophylline, sophoramine, cystisine, among others. Additionally, the best inhibition was presented in those extracts with greatest content of quinolizidine alkaloids. So, the *G. monspessulana*-derived alkaloid-containing extracts could be considered as potential sources of antifungal compounds based on alkaloids. *The present work is a product derived by the Project INV-CIAS-1788 financed by Vicerrectoría de Investigaciones at UMNG, validity 2015.*

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