Antimicrobial and cytotoxic activities of different Pinus extracts cultivated at different altitude in AL-Jabel AL-Akhdar

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Abstract

The total alcoholic extracts prepared from the aerial parts (needles and young stems) of Pinus halepensis and Pinus pinea cultivated at different localities in AL-Jabal AL-Akhdar Province, Sidi AL-Hamry and AL-Aslab regions for P. halepensis, Werdama and AL-Mansura for P. pinea showed significant cytotoxic activity against both breast and colon cell lines MCF-7 and HCT-116 as well as a significant antibacterial activity against Gram positive bacteria and medium effect on tested fungi and negative effect on Gram negative bacteria. Both hexane and ethanol extract revealed significant anti-bacterial effect on both Gram positive and Gram negative bacteria and at the same time has no effect on the tested fungi. While chloroform extract showed no significant antimicrobial activity. Antibiotic sensitivity of organisms used in this study showed high activities against different antibiotics and chemicals.

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