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## Antibacterial activity of the essential oil of *Origanum vulgare* L. against strains of *Acinetobacter* spp.

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Oregano oil and its major phenolic components, are known for their wide spectrum of antimicrobial activity, which has been the subject of several investigations in vitro and in vivo. In this context, the aim of this study was to evaluate the antimicrobial activity in vitro of the essential oil of oregano against *Acinetobacter* spp. and to carry out the molecular characterization of this oil. Gas Chromatography(GC) and Gas Chromatography/MassSpectrometry(GC/MS) analysis examined the chemical composition of the oil. The yield of EO of *O.vulgare* was 1.15% and the major compounds were thymol (32.58%),  $\gamma$ -terpinen (18.76%), phenol (17.92%) and 1, 2, 3, 4-tetramethylfulvene (11.40%). The EO showed a very effective bactericidal activity towards the tested bacterial strains with maximal inhibition zones in the range of 27,2 - 36,6 mm and a minimum inhibitory concentration (MIC) ranging from 0,314 to 2,51 mg/ ml. The results obtained at the end of this study demonstrate the antibacterial activity of the EO of *O.vulgare* L. against *Acinetobacter* bacteria. These results suggest that OEO may be a useful alternative to antibiotics for the control of the infections caused by *Acinetobacter* spp.

### Biography

Nora Mahfouf is an assistant professor in the Departement of Pharmacy at Badji Mokhtar University (Algeria). She received her Diploma of Higher Studies in Microbiology, University of Badji Mokhtar, working with *Pr. BOUTEFNOUCHET Nafissa* on topics in nosocomial infections and the resistance to antibiotics of the species *Pseudomonas aeruginosa*. She then moved to Chadli Ben Djedid University where she received Biology Master's diploma in Ecotoxicology, she worked on the antibacterial activity of rosemary essential oil on strains of Gram positive and Gram negative antibiotic resistant bacteria. At present, she is preparing a PhD thesis on the study of the *Origanum vulgare* species. She works with Prof. Hichem NASRI and Prof. BENNADJA Salima on the bactericidal activity of the essential oil of oregano.

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