

Biological activity and chemical composition in fatty acids of *Pistacia terebinthus* L. fruits extracted with supercritical carbon dioxide

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Pistacia terebinthus L. is used as an edible food plant and in folk medicine due to its medicinal properties. Its fruits contain an oil with important therapeutic and interesting nutritional properties due to the high content in oleic and linoleic acids.

A valid extraction technique, using supercritical CO₂, was tested to obtain a high-quality oil from *Pistacia terebinthus* from different geographical regions. This oil could be used both in food and pharmaceutical preparations because the recovery took place without using any organic solvent. It has been demonstrated that yield, fatty acid contents as well as antifungal activity depend on the origin of the plant.

The antifungal activity of the extracts was evaluated by means of the microdilution method against *Candida* spp., *Cryptococcus neoformans* and dermatophyte strains. The extract from the Italian sample showed a moderate activity against *Trichophyton mentagrophytes*, *T. mentagrophytes* var. *interdigitale* and *Epidermophyton floccosum*.

Keywords: *Pistacia terebinthus*; fatty acid; supercritical extraction; antifungal activity.