

Analysis of Essential Oil Composition of *Thymbra spicata* var. *spicata*: Antifungal, Antibacterial and Antimycobacterial Activities

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The fresh leaves and brine of leaves of *Thymbra spicata* var. *spicata* (KARAKIZ™) were analyzed by hydrodistillation, headspace and GC/MS techniques. The main components were determined as carvacrol, *p*-cymene, β -myrcene, γ -terpinene, α -terpinene and *trans*-caryophyllene. The essential oil and the main compounds, carvacrol and *trans*-caryophyllene, have been tested against *E. coli*, *S. epidermidis*, *B. subtilis*, *S. aureus*, *S. typhimurium*, *K. pneumoniae*, *P. aeruginosa*, *E. faecalis* and *C. albicans*. While the essential oil and carvacrol showed strong activity against all microorganisms, except *P. aeruginosa*, *trans*-caryophyllene showed activity only against *C. albicans*. The essential oil and carvacrol also showed strong antimycobacterial activity.

Key words: *Thymbra spicata*, Carvacrol, Antimicrobial and Antimycobacterial Activity