

# Analysis of Essential Oil of *Coridothymus capitatus* (L.) and Its Antibacterial and Antifungal Activity

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The water-distilled essential oil the leaves of *Coridothymus capitatus* were analyzed by GC/MS and also analyzed by direct thermal desorption GC/MS. Comparison was made between two analyses techniques. The essential oil consisted mainly of monoterpenes 98.9 %, while oxygenated hydrocarbons were identified as 55.6 % and non-oxygenated hydrocarbons as 43.6 %. As major components were found carvacrol (35.6 %), *p*-cymene (21.0 %), thymol (18.6 %),  $\gamma$ -terpinene (12.3 %),  $\alpha$ -terpinene (3.2 %),  $\beta$ -myrcene (3.0 %) and  $\alpha$ -thujene (1.3 %) by hydrodistillation and by the GC/MS method. The direct thermal desorption GC/MS analysis also showed the same major components, namely carvacrol (51.6 %), thymol (21.7 %), *p*-cymene (9.7 %)  $\gamma$ -terpinene (8.2 %),  $\alpha$ -terpinene (1.64 %). The essential oil of *C. capitatus* showed strong activity against *S. aureus*, *P. vulgaris*, *P. aeruginosa*, *E. coli*, *K. pneumonia*, *B. subtilis*, *E. faecalis*, *S. epidermidis* and *C. albicans*.

**Key words:** *Coridothymus capitatus*, Antimicrobial Activity of Essential Oil, Thermal Desorber GC/MS