The water-distilled essential oil of 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%), γ-terpinene (12.3%), α-terpinene (3.2%), β-myrcene (3.0%) and α-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%) γ-terpinene (8.2%), α-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