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### *Investigation of in vitro Antimicrobial Activity of Honey*

**Abstract.** *Apitherapy or therapy with bee products as honey is an old tradition. In this study, the antimicrobial activity of 84 honey samples were investigated against 8 bacteria potential pathogens and 2 fungi. Honey samples were obtained from 10 different floral sources. The findings indicate that honey samples with thyme, thyme + acorn, pine + carob, pine + carob + anis and pine + chestnut are more effective than the other honey of floral sources. The results of the survey show that most of honey samples at 50% (w/v) can completely inhibit the growth of all of the tested bacteria. The fungi were less sensitive than the bacteria to the antimicrobial activity of honey. The sensitivity of microorganisms to sugar solutions with similar sugar contents as some honey samples which have high antimicrobial activity were also assayed. This sugar solutions inhibited a narrow range of bacteria and did not inhibit any of the fungi tested. In conclusion, these results encourage further studies to investigate possible benefits of the use of honey among therapies in the treatment of bacterial infections.*