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Document Title : Comparative studies of the antimicrobial growth effect of some local and imported bees honey
دراسات مقارنة للتأثيرات المضادة للنمو الميكروبي لبعض انواع العسل المحلي المستورد

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Abstract : A total of 6 bacterial strains Escherichia coli ATCC 25922- Staphylococcus aureus A TCC 118592 Pseudomonas aeruginosa A TCC 10145 -Candida albicans A TCC 90028 Streptococcus pyogenes A TCC 19615 - Salmonella typhimurium A TCC 14028 were utilized for the in vitro verification of Antimicrobial action of different kinds and concentrations of honeys (both local and imported, naturally harvested and commercially processed) by agar well method as well as by nutrient broth method under different incubation periods at 37 c , in the agar well method, after 24hours of incubation at 37 c , the zone of inhibition of each microbes was measured. The data showed that different kinds and concentrations of honeys have different inhibitory effects on microbes. The result of liquid broth methods indicated that microbial number reduced progressively and incubation as concentration of honey increased, this demonstrating microbicidal effect of tested honey especially at 72 and 48 hrs of incubation. In addition, some of antibacterial growth substances in honey have been extracted with some mobile phases using Thin Layer Chromatography (TLC) and High Performance Thin Layer Chromatography (HPLC) technique as compared to standard references of Tetracycline (Tc) , Oxytetracycline (Oxy) and Deoxycycline (Deoxy) . The results demonstrated the existence of substances in all tested samples of honey of similar Rf values to those of (Tc) and (Oxy) .

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