



ANTIBACTERIAL EFFECTS OF AL - AQUEOUS AND AL-COHOLIC EXTRACT OF COLUTEA CILICICA L . PLANT

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Abstract

In this study, samples were collected from the plant Colutea cilicica L. , which is a member of the family Papilionoideae (legume family), and it is the only species of the genus Colutea L spread in Iraq. Aqueous and alcoholic extract of the plant were prepared for antibacterial efficacy study. All of extracts were tested for their antibacterial activity against (8) pathogenic bacterial three of them Gram positive bacteria (Staphylococcus albus , Staphylococcus aureus and Streptococcus pyogenes) and five were negative for Gram stain (Escherichia coli , Klebsilla pneumonia , Pseudomonas aeruginosa , Serratia marcescens and Sallmonella typhi) by perpendicular streak method on Muller - Hinton agar. The extracts have antibacterial activity against pathogenic bacteria. The study proved the effectiveness of the extract against bacteria . The diameter of inhibition zone of the alcoholic extract reached (30) mm against Gram positive bacteria and reached (7.27) mm against Gram negative bacteria. While the inhibition diameter of the aqueous extract reached (29) mm against Gram-positive bacteria(5.30 mm) against Gramnegative bacteria. The results showed that the minimum inhibitors concentration (MICs) of alcoholic extract against bacteria was (0.625) $\mu\text{g} / \text{ml}$ for all gram negative and gram positive bacteria except against E. coli was (1.25) $\mu\text{g} / \text{mL}$ and the minimum bactericidal concentration (MBCs) ranged from (0.312-0.625) $\mu\text{g} / \text{ml}$ against Gram-positive and negative bacteria. While minimum concentration inhibitors (MICs) of aqueous extract were (0.625) $\mu\text{g} / \text{ml}$ against Gram negative and Gram positive bacteria , (MBCs) were (0.312) $\mu\text{g} / \text{mL}$ against Gram positive and negative bacteria .

Author Keywords

Antibacterial effects; (MICs); Colutea cilicica L; (MBCs); Aqueous extract; alcoholic extract

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