

Study of the Antimicrobial Potential Of a Rich Polyphenolic Extract Obtained from *Cytisus scoparius*

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Abstract : Natural extracts containing high polyphenolic concentration possess antibacterial and antifungal activity. The present research characterizes a hydro-organic extract with a high polyphenolic content as an antimicrobial candidate. As a result of this composition, the extract showed pronounced bioactivities with potential uses in agricultural, veterinary, pharmaceutical, and cosmetic industries. Polyphenol compounds were extracted by using hydro-organic solvent mixtures from the shrub *Cytisus scoparius*. The in vitro antimicrobial activity of this extract was evaluated on Gram-positive and Gram-negative bacteria and the fungus *Candida albicans*. Microbial species investigated, *Bacillus cereus*, *Escherichia coli*, *Staphylococcus aureus*, and *Pseudomonas aeruginosa*, are causing agents of several human and animal diseases. The extract showed activity against all tested species. So, it could be used for the development of biocides to control a wide range of pathogenic agents and contribute to the creation of economic and eco-friendly alternatives to antibiotics.

Keywords : antimicrobial properties, antioxidant properties, *Cytisus scoparius*, polyphenolic extract

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