

## **The Effect of Some Macrofungi Extracts on Cytoplasmic Membrane of Multidrug Resistant Bacteria by Flow Cytometry**

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**Abstract :** The natural active compounds found in medicinal plants are belong to various chemical structures including polyphenolic compounds, flavonoids, essential oils, and vitamins and some of these compounds have anticancer, antioxidant, and antimicrobial activity. However, these compounds have been little known about mechanisms to confer antibacterial drug resistance. In this study; some macrofungi extracts (*Pholiota lucifera*, *Gnaoderma applanatum* and *Pleurotus ostreatus*) were investigated for their abilities to enhance bacterial permeability by flow cytometry. This experiments exhibited enhancement of these extracts to disrupt the cytoplasmic membrane of living bacterial (*Listeria innocua* and *Escherichia coli*) cells. These experiments were designed to detect uptake of PI&SYT by enhancing with a ranged concentration of herb extracts.

**Keywords :** antimicrobial activity, flow cytometry, macrofungi, multidrug resistant

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