

**ANTIMICROBIAL ACTIVITY OF *Euphorbia hirta* PLANT EXTRACTS  
AGAINST *Escherichia coli* AND *Candida albicans***

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## ABSTRACT

### ANTIMICROBIAL ACTIVITY OF *Euphorbia hirta* PLANT EXTRACTS AGAINST *Escherichia coli* AND *Candida albicans*

*Euphorbia hirta* is a very popular herb amongst practitioners of traditional herb medicine, widely used as a decoction or infusion to treat various ailments including intestinal parasites, diarrhoea, vomiting, asthma, bronchitis, coughs and venereal diseases. The purpose of this study to find the chemical compounds in *E. hirta* plant and also to perform antimicrobial study in order to determine the efficiency of *E. hirta* plants. The powdered plant material was extracted using two solvents methanol and hexane through sequential extraction. Agar well diffusion method was used to determine the antimicrobial activity against *Escherichia coli* and *Candida albicans*. The methanol produced the higher yield of extract than hexane. Phytochemical screening of the crude extracts revealed the presence of alkaloid, flavonoid, terpenoids, tannins, phenolics and glycosides. Presence of bioactive constituents have been linked to the antimicrobial activity of the plant material. Methanol *E. hirta* extract is more effective in antibacterial than hexane extract. Different concentrations of crude extract show significant difference ( $P \leq 0.05$ ). *E. hirta* plants extract do not show any antifungal activity. The results presented in this study confirmed that extracts of *E. hirta* hold antibacterial potential effects against pathogenic microorganisms and therefore can be used as a safe, reliable and economical natural antibacterial source for therapeutic treatment.

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