

**STUDIES ON PHYTOCHEMICAL CONSTITUENTS AND  
ANTIMICROBIAL PROPERTIES OF *Citrullus lanatus***

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## ABSTRACT

### STUDIES ON PHYTOCHEMICAL CONSTITUENTS AND ANTIMICROBIAL PROPERTIES OF *Citrullus lanatus*

*C. lanatus* is one of many species under the genus *Citrullus* which originates from Family Cucurbitaceae, the gourd family. It has been scientifically proven that many members of this family possessed pharmaceutical and medicinal values such as *Cucurbit pepo* (pumpkin), *Lagenaria siceraria* (bottle gourd), *Citrullus colocynthis* (bitter cucumber) and *C. lanatus* (watermelon) is no exception. The aim of this study is to explore its phytochemical constituents and potential antimicrobial activity of *C. lanatus*, particularly its peels. The peels were firstly undergone sequential extraction process involving two type of solvents namely, methanol (polar) and hexane (non-polar). *C. lanatus* extracts were then evaluated in terms of its phytochemical constituents, by six qualitative phytochemical screening tests. In assessing *C. lanatus* potential antimicrobial activity, the peels extract were tested on two type of microorganisms namely, *Staphylococcus epidermidis* (bacteria) and *Trichophyton mentagrophytes* (fungus) using disk-diffusion method. For both solvents used, phytochemical screening tests verified the presence of alkaloid, flavonoid, saponin, tannin and terpenoid except phenolic compounds in the fruit peels. Result of antimicrobial activity revealed that *C. lanatus* peels extract impeded growth to the both of the tested microorganisms. In conclusion, present study suggested that *C. lanatus* can be further developed to utilize its medicinal and pharmaceutical values.