

**A STUDY OF ANTIBACTERIAL AND PHYTOCHEMICAL  
PROPERTIES OF *CASSIA OCCIDENTALIS* (FABACEAE)  
LEAVES**

**BY**

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## ABSTRACT

Humans benefit from plants secondary metabolites in several ways, including treatment and prevention of diseases. *Cassia occidentalis* belongs to the family Fabaceae. The plants leaves are to be collected, dried and crushed. Extraction of the plant material was conducted separately using four extracting solvents methanol, dichloromethane, ethyl acetate and hexane in four stoppered containers each with a set standard weight of the plant material in them.

The study was carried out to identify different phytochemicals which are present in *Cassia occidentalis* leaves and determine the antimicrobial spectrum of the plant. The antimicrobial activity was done against three human pathogenic microorganisms, gram positive, gram negative and a fungus (*S. aureus*, *E. coli* and *C. albicans* respectively). The purification of the samples was done using thin layer chromatography.

The study was carried out in Mount Kenya University, Thika campus and microbial isolates obtained from Thika level five district hospital from May to September 2013. The aim was to determine the antimicrobial activity of *Cassia occidentalis* and identify different chemical species present in the plant. Further studies can be done to fractionate the chemical components and study of the different fraction in invivo animal models so as to reduce the toxicity of the herbal plant.

**Keywords:** natural products; medicinal plants; traditional medicine; phytochemical screening; antimicrobial activity; and purification of sample.