

**Phytochemical screening and *in vitro* antibacterial potential of *Cassia auriculata* Linn. flowers against pathogenic bacteria**

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**ABSTRACT**

The aim of present study is to investigate the screening of phytochemicals and to determine the antibacterial potential of *Cassia auriculata* flowers against five human bacterial pathogens namely *Bacillus* sp., *Lactobacillus* sp., *Pseudomonas* sp., *Proteus* sp., and *Streptococcus* sp. using five different solvents namely, acetone, chloroform, ethanol, methanol and water. The phytochemical analysis gave the positive result for Alkaloids, Saponin, Terpenoids, Phenols, Tannins, Flavonoids, Carbohydrates, Proteins and Amino acids. The maximum antibacterial activities were assessed with agar well diffusion method. 10, 20, 40 µl volumes of different plant extracts were used. The antibacterial activity decreased in the order of Ethanol > Methanol > Acetone > Water > Chloroform. Out of the five extracts used methanol and ethanol were found to be highly active against *Bacillus* sp., *Lactobacillus* sp., and *Streptococcus* sp. Moderate antibacterial potential was seen in acetone and aqueous extracts and no bacterial activity was recorded with chloroform extracts except for *Proteus* sp.