

**PHYTOCHEMICAL SCREENING AND BIOACTIVITY STUDIES
OF *ZIZIPHUS MAURITIANA* (TWIGS AND LEAVES)**

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ABSTRACT

PHYTOCHEMICAL SCREENING AND BIOACTIVITY STUDIES OF *ZIZIPHUS MAURITIANA* (LEAVES AND TWIGS)

In the research of phytochemical screening and bioactivity studies of *Ziziphus mauritiana*, two part of *Z. mauritiana* plant were obtained which are leaves and twigs. Extraction process of *Z. mauritiana* take placed by using three different polarity of solvents which are hexane, chloroform and methanol using cool extraction method. The highest percentage yield is chloroform leave extract which is 3.71%. The phytochemical screening studies revealed there are many secondary metabolites presence inside *Z. mauritiana* such as alkaloid, flavonoid, glycoside, phenol, saponin, steroid, sterol, tannin and terpenoid while for leave part saponin was absence. In thin layer chromatography (TLC) method the solvent system used is the mixture of hexane and chloroform with ratio 3:7 and 1:9 to obtain better fractionation of compound using short (245 nm) and long (366 nm) wavelength Ultraviolet (UV) lamp. Antibacterial activity by using disc diffusion method toward *Bacillus subtilis*, *Staphylococcus aureus*, *Escherichia coli* and *Salmonella sp.* were conducted. Besides that, the highest maximum zone inhibition diameter recorded is hexane leaves crude extract on *S. aureus* bacteria which is 15 mm. In addition, antioxidant study discovered the highest percentage found on crude extract of methanol.