

## **Antibacterial Activity Test Methanolic Extract Seed Mahagony**

***(Swietenia mahagoni (L) Jacq) against Shigella flexneri.***

### **ABSTRAK**

Bacterial infectious diseases is one of the health problems that often occur. The high incidence of bacillary dysentery in Indonesia, which is the cause of the genus *Shigella* infections are things that need attention. The use of plants as traditional medicine is often carried out in Indonesia, one of the plant that is often used is mahogany seeds (*Swietenia mahagoni* (L) Jacq). This study aimed to evaluate the antibacterial activity of methanolic extract against *Shigella flexneri*.

The extraction process on the research done by maceration method. Viscous extract obtained is made into four different concentration (20%, 40%, 60% and 80%) which will then be used as a sample for testing antibacterial activity. Testing the antibacterial activity in this study conducted by the agar diffusion method. Analysis of secondary metabolites content of alkaloids and flavonoids are thought to have antibacterial activity qualitatively performed by thin layer chromatography (TLC).

The test results showed that the antibacterial activity of methanolic extracts have good antibacterial activity against *Shigella flexneri* which is indicated by the presence of inhibition zones in the form of clear area in cultured so that 20% of the lowest concentration of 8.1 mm to 20.2 mm in the highest 80%. TLC analysis of test results showed that the methanolic extract mahogany seeds contain the alkaloid compounds has been demonstrated orange brown spots on visible light after Dragendorff reagent additions to the value of Rf 0.77 and flavonoids with patches of yellow in visible light after the addition of reagent Sitoborat with a value of Rf 0,48.

**Keywords:** *Swietenia mahagoni* (L) Jacq, antibacterial activity, TLC, *Shigella flexneri*.