

ABSTRACT

ANTIBACTERIAL ACTIVITY TEST EXTRACT OF METHANOL 80% OF MIMBA LEAF (*Azadirachta indica* A. Juss) AGAINST *Staphylococcus aureus* BACTERIUM BY DIGESTIC EXTRACTION METHOD

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Currently, many people suffer from infections, one of which is bacteria, while the bacteria is *Staphylococcus aureus*. These bacteria can cause skin infections such as boils, impetigo, acne. Treatment of this disease can use natural or chemical materials, but people in Indonesia currently use natural materials more because they do not cause side effects, are safe and easily obtained. This study aims to determine the concentration of 80% Mimba-leaf methanol extract that can produce inhibition zones against *Staphylococcus aureus* bacteria. In this study the extraction method used was the digest extraction method. The antibacterial testing method in this study used paper discs (disc paper) soaked at every concentration and then incubated for 1x24 hours. This study used 3 replications with 5 concentrations, which were 100 ppm, 500 ppm, 1,000 ppm, 5,000 ppm, 10,000 ppm, for each measurement using 10% DMSO as negative control and Cefadroxil as positive control. The results of this study are that the extract of 80% Mimba methanol against *Staphylococcus aureus* bacteria at a concentration of 10,000 ppm shows greater antibacterial activity, resulting in an average inhibition zone of 10,000 ppm (2.73 mm), 5,000 ppm (0.99 mm), and at a concentration of 1,000 ppm, 500 ppm, and 1,000 ppm. 100 ppm does not produce an inhibition zone so they do not have antibacterial activity against *Staphylococcus aureus* bacteria. Soak for 5 minutes at each concentration and incubate for 1x24 hours. This study used 3 replications with 5 concentrations, which were 100 ppm, 500 ppm, 1,000 ppm, 5,000 ppm, 10,000 ppm, for each measurement using 10% DMSO as negative control and Cefadroxil as positive control. The result of this study is the 80% Mimba Leaf Mimba Extract Anti-Bacterial Activity Test (*Azadirachta indica* A.D.) Juss) against *Staphylococcus aureus* bacteria at concentrations of 100 ppm, 500 ppm, 1,000 ppm cannot produce antibacterial activity against *Staphylococcus aureus* bacteria. At a concentration of 5,000 ppm, it inhibits the growth of *Staphylococcus aureus* with an average of 0.99 mm (weak), while at a concentration of 10,000 ppm inhibits the growth of *Staphylococcus aureus* with an average of 2.73 mm (weak). Negative control of DMSO 10% does not form an inhibition zone around the disc surface media and positive control using Cefadroxil can inhibit the growth of *Staphylococcus aureus* bacteria with an average of 10.63 mm (medium).

Keyword : *Antibacterial activity, Staphylococcus aureus, Azadirachta indica* A. Juss