

ABSTRACT

ANTIBACTERIAL ACTIVITY TEST OF 80% ETHANOL EXTRACT OF ROSEMARY (*Rosmarinus officinalis* L.) LEAVES AGAINST *Staphylococcus aureus* BACTERIA

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Currently, many diseases suffered by people are caused by infection, one of these infections is bacteria, while the bacteria is *Staphylococcus aureus*. These bacteria can cause skin infections such as boils, impetigo, acne. The treatment of this disease can use natural or chemical materials, but people in Indonesia are currently using more natural ingredients because they do not cause side effects, are safe and easy to obtain. The purpose of this study was to determine the concentration of 80% ethanol extract of Rosemary leaves which can produce an inhibition zone against *Staphylococcus aureus* bacteria. In this study the extraction method used is the digestion extraction method. The antibacterial testing method in this study used the paper disc (disk paper) which was soaked at each concentration and then incubated for 1x24 hours. This study used 3 replications with 5 concentrations, namely 100 ppm, 500 ppm, 1,000 ppm, 5,000 ppm, 10,000 ppm, for each measurement using 10% DMSO as a negative control and Cefadroxil as a positive control. The results in this study were that the 80% ethanol extract of Rosemary leaves against *Staphylococcus aureus* bacteria at a concentration of 10,000 ppm showed greater antibacterial activity, which resulted in an average inhibition zone of 10,000 ppm (10.8 mm), 5,000 ppm (6.7 mm), and at concentrations of 1,000 ppm, 500 ppm, 100 ppm did not produce an inhibition zone so they did not have antibacterial activity against *Staphylococcus aureus* bacteria. soaked for 5 minutes at each concentration then incubated for 1x24 hours. This study used 3 replications with 5 concentrations, namely 100 ppm, 500 ppm, 1,000 ppm, 5,000 ppm, 10,000 ppm, for each measurement using 10% DMSO as a negative control and Cefadroxil as a positive control. The results in this study were Antibacterial Activity Test of 80% Ethanol Extract of Rosemary Leaves (*Rosmarinus officinalis* L.) against *Staphylococcus aureus* bacteria at concentrations of 100 ppm, 500 ppm, 1,000 ppm could not produce antibacterial activity against *Staphylococcus aureus* bacteria. At a concentration of 5,000 ppm it inhibited the growth of *Staphylococcus aureus* bacteria with an average of 6.7 mm (moderate), while at a concentration of 10,000 ppm it inhibited the growth of *Staphylococcus aureus* bacteria with an average of 10.8 mm (strong). Negative control DMSO 10% did not form an inhibition zone around the disc surface media and the positive control using Cefadroxil could inhibit the growth of *Staphylococcus aureus* bacteria with an average of 20.1 mm (very strong).

Keyword : Antibacterial activity, *Staphylococcus aureus*, *Rosmarinus officinalis* l,
Ethanol 80%