

ABSTRACT

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

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Infectious diseases are pathogenic diseases where agents such as bacteria, viruses, fungi, worms have the ability to enter the human body. One of the bacteria that can cause infectious diseases is *Bacillus subtilis*. Treatment of this disease can use natural ingredients or chemicals, but people in Indonesia currently use 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 that can produce an inhibition zone against bacteria. The antibacterial testing method in this study uses paper disks (disk paper) soaked in each concentration then incubated for 1x24 hours. This study used 3 replicates 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 Sefadroxil as a positive control. The results of this study are 80% ethanol extract of Rosemary leaves against *Bacillus subtilis* bacteria at a concentration of 5,000 ppm produces an inhibition zone of 1.4 mm classified as weak category while at a concentration of 10,000 ppm produces an inhibition zone of 2.4 mm with a weak category. Negative control DMSO 10% does not form an inhibition zone around the surface of the disc media and positive control using Cefadroxil can inhibit the growth of *Bacillus subtilis* bacteria with an average of 14.9 mm classified as strong category.

Keywords : *Antibacterial activity, Bacillus subtilis, Rosmarinus officinalis* L.