

## ABSTRACT

### ANTIBACTERIAL ACTIVITY OF ETHANOL EXTRACT OF GARLIC (*Allium sativum L.*) AGAINST *Staphylococcus Aureus* IN VITRO

By

JEANNA SALIMA

Infectious disease has become one of major health concern not only in Indonesia, but also in the world. Antibiotics is main treatment of infectious disease. But, as the rate of infectious disease goes up, so does the use of antibiotics, which if it is used irrationally, could lead us to a new problem, which is, antibiotic resistant pathogens. Therefore, the use of herbs as alternative medicine is now being thoroughly studied. One of the herbs that is now being extensively studied by researchers is garlic. This experiment has the aim of determining antibacterial activity of garlic against *Staphylococcus aureus*.

This experiment was an observational laboratory experiment. The Minimum Inhibitory Concentration (MIC) and Minimum Bactericidal Concentration (MBC) was determined using *broth dilution* method. The Minimum Inhibitory Concentration was determined visually by observing the turbidity of *Mueller Hinton Broth* (MHB) which was added with various concentration of ethanol extract of Garlic (50%, 25%, 12,5%, 6,25%, 3,125%, 1,56%, 0,78%) and inoculated each with one ose of *Staphylococcus aureus*. Then, to determine the MBC, each broth was then inoculated on Mueller Hinton Agar to see if there is any growth of bacterial colony.

The result of this experiment shows that ethanol extract of garlic has the ability to inhibits and kills bacterial growth against *Staphylococcus aureus* in the concentration of 6,25% and higher.

Therefore, we could summarize that ethanol extract of garlic has both the ability to Inhibits and to kill the growth of gram positive bacteria, *Staphylococcus aureus*.

**Keywords:** Antibiotic, garlic, *Staphylococcus aureus*.