ABSTRACT

ANTIBACTERIAL ACTIVITY RESISTANCE TEST OF MIMBA EXTRACT (Azadirachta indica A. Juss) against Pseudomonas aeruginosa bacteria WITH MACERATION METHOD

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Neem leaves (Azadirachta indica A. Juss) is a wild plant that is often found in several areas in Indonesia, part of this plant, especially in the leaves there are secondary metabolites such as tannins, triterpenes, saponins, alkaloids, flavonoids, and steroids. There are also some bacteria that can cause infection, one of which is Pseudomonas aeruginosa. The aim of the study was to determine the potential antibacterial activity of neem leaf extract in inhibiting the growth of Pseudomonas aeruginosa bacteria. This study used 3 treatment concentrations of neem leaf extract and 1 negative control DMSO 10%. In this study, the method used for extraction is the maceration extraction method. While the antibacterial inhibition test method used the paper disc diffusion method to determine the effect of neem leaf extract (Azadirachta indica A. Juss) against Pseudomonas aeruginosa bacteria on Nutrient Agar (NA) media. Based on the research that has been carried out, the results of the antibacterial inhibitory activity test results of neem leaf extract formed at concentrations of 3%, 5%, 7% and DMSO 10% negative control with 6 replications of 0.6 mm, 1.4 mm, 2.2 mm and 0 mm which are categorized as weak inhibition zones in inhibiting the growth of Pseudomonas aeruginosa bacteria. In conclusion, in the study of the activity test of neem leaf extract (Azadirachta indica A. Juss) with concentrations of 3%, 5%, 7% and in the negative control DMSO 10% against Pseudomonas aeruginosa bacteria by maceration method using 96% ethanol solvent known to have antibacterial ability with effectiveness weak. Suggestions need to be done other studies with different concentrations or maybe higher. Further research is also needed using different solvents and extraction methods.

Keywords : *Azadirachta indica A. Juss, Pseudomonas aeruginosa, Maceration method, ethanol 96%.*