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***ACTIVITY TEST OF ETHANOL EXTRACT OF OIL PALM LEAVES (*Elaeis guineensis* Jack.) AGAINST THE GROWTH OF *Staphylococcus aureus* dan *Escherichia coli* USING TLC-BIOAUTOGRAPHY***

**ABSTRACT**

**Background :** Infectious diseases are conditions that arise from the entry and growth of microorganisms into the body. Commonly found bacteria include *Staphylococcus aureus* and *Escherichia coli*. Treatment for infections can include antibiotic therapy. Continuous and irregular antibiotic therapy can lead to bacterial resistance. Therefore, the use of traditional medicine is considered safer and more beneficial than chemical drugs. This study used oil palm leaves (*Elaeis guineensis* Jack.) as a natural antibacterial compound.

**Research objectives :** This study aims to determine the antibacterial activity of ethanol extract of oil palm leaves (*Elaeis guineensis* Jack.) against the growth of *Staphylococcus aureus* and *Escherichia coli* and to determine the compounds from ethanol extract of oil palm leaves (*Elaeis guineensis* Jack.) that can provide antibacterial activity based on TLC-bioautography analysis.

**Research Methods :** This research is an experimental laboratory study to determine the antibacterial activity of ethanol extract of oil palm leaves (*Elaeis guineensis* Jack.). Ethanol extract of oil palm leaves (*Elaeis guineensis* Jack.) was obtained through maceration with 95% ethanol as a solvent. Then, activity testing was carried out using TLC-Bioautography against *Staphylococcus aureus* and *Escherichia coli* bacteria.

**Results :** The results of the separation of compounds by Thin Layer Chromatography (TLC) using n-hexane: ethyl acetate (7: 3) eluent. The results of the TLC-Bioautography test showed that spots at Rf values 0,92; 0,85; 0,74; 0,7; 0,63 dan 0,52 can provide inhibitory activity against *Staphylococcus aureus* and at Rf values 0.92; 0.85 can provide inhibitory activity against *Escherichia coli*. The results of the identification of chemical components gave positive results in the appearance of flavonoid group spots at Rf values 0.92; 0.85 and alkaloids at Rf values 0.92; 0.74.

**Keywords :** Palm leaves (*Elaeis guineensis* Jack.), Antibacterial activity, *Staphylococcus aureus*, *Escherichia coli*, TLC-bioautography

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