

## ABSTRACT

*Antibacterial Activity of Sweet Orange Skin Against The Growth of staphylococcus epidermidis in vitro*

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**Introduction:** *Staphylococcus epidermidis* is known as one of pathogenic bacteria that cause acne, Although its resistency towards antibiotic is rarely found, it doesn't rule out the possibility of the emergence of it in the future. Sweet orange skin (*Citrus sinensis*) is known for having several antibacterial compound. Therefore, researcher examined the benefit of sweet orange skin extract as an alternative for treating acne caused by *Staphylococcus epidermidis*. This study was performed to test the antibacterial activity of sweet orange skin (*Citrus sinensis*) against *Staphylococcus epidermidis*. **Methods:** This study was an experimental study, which was conducted in the laboratory. The sample of this study was *Staphylococcus epidermidis*. The sample was tested and obtained from Microbiology Laboratory of Airlangga University. Antibacterial activity test was performed to evaluate the minimum inhibitory concentration (MIC) using the broth dilution at the concentration of 100%; 50%; 25%; 12,5%; 6,25%; 3,125% and 1,5625%. The minimum bactericidal concentration (MBC) were determined by plating tube suspension from broth dilution test on *Nutrient Agar plate*. **Results:** According the experiment and 4 times repetition, growth of *Staphylococcus epidermidis* in Mueller Hinton Agar Broth with extract wasn't found. Based on *Nutrient Agar plate* after streaking and incubation, the astract inhibited at the concentration of 100%, 50%, and 25%. **Conclusion:** There is an antibacterial activity in Sweet orange skin (*Citrus sinensis*) against the growth of *Staphylococcus epidermidis* with minimum bactericidal concentration at 100%, 50%, and 25%

**Keywords:** *Staphylococcus epidermidis* – Sweet orange skin – antibacterial – dilution test