

## ABSTRACT

**Background :** *Hylocereus polyrhizus*, better known as red dragon fruit, is known to have high antioxidant content dan widely used as a food coloring. However, the utilization of red dragon fruit peel is still narrow. Whereas it has been publicized that red dragon fruit peels have wide antibacterial activity against both gram-negative dan positive, including *Staphylococcus aureus*.

**Objective :** The purpose of this study was to determine the antibacterial activity of red dragon fruit peel against MSSA (Methicillin-Susceptible *Staphylococcus aureus*) dan MRSA (Methicillin-Resistant *Staphylococcus aureus*)

**Method :** This research is an experimental laboratory study using a well-diffusion method to determine the antibacterial activity of red dragon fruit peels against MSSA ATCC 25923 dan MRSA *in vitro*. Through well-diffusion, we knew the average diameter of the inhibitory zone produced by the extract. In this study, well-diffusion was carried out on 5 concentrations of methanol extract of dragon fruit peels, namely 100%, 75%, 50%, 25% dan 0% (as a negative control), where the 100% concentration contained 1gr / ml extract. DMSO 10% used as a solvent, dan erythromycin 30 µgram dan vancomycin 15 µgram used as a positive control of MSSA dan MRSA, respectively.

**Result :** Based on this research, it is known that the methanol extract of red dragon fruit peels has antibacterial activity against both MSSA dan MRSA. Moreover, it shows a higher antibacterial activity against MRSA. The average diameter of the inhibition zone produced is 0 - 16.54 mm for MSSA dan 12.53-17.32 mm for MRSA. Therefore, red dragon fruit skin has the potential to be developed as an antibiotic against *Staphylococcus aureus*

**Keywords :** *Antibacterial activity, Red dragon peel (Hylocereus polyrhizus), methanolic extract, S. aureus ATCC 25923, MRSA*