

ABSTRACT

Dwioktami Tumale Kobba. 24020218140056. Antioxidant and Antibacterial Activity Test of Katokkon Chili Extract Against *Staphylococcus aureus* and *Escherichia coli*. Under the guidance of Hermin Pancasakti Kusumaningrum and Arina Tri Lunggani.

Katokkon chili peppers have bioactive compounds that are positively correlated to antioxidant and antibacterial activity. This study aims to determine the antioxidant activity of ethanol extract in katokkon chili, and to determine the antibacterial activity of ethanol extract in katokkon chili on *Staphylococcus aureus* and *Escherichia coli*. The ethanol extract of chili katokkon was made with concentrations of 100, 75, 50, and 25 ml with three repetitions. This antioxidant activity test uses the DPPH method. This antibacterial activity test uses the agar diffusion using the Kirby Bauer method with three repetitions. The media used as antibacterial test in this study is Mueller-Hinton Agar (MHA). The research results showed that in the antioxidant test of katokkon chili extract, the IC₅₀ value of Vitamin C was 13.6155 µg/mL, which was categorized as having very strong antioxidant activity, while the IC₅₀ value of chili ethanol extract was 205.122 µg/mL, which was categorized as having very weak antioxidant activity. The results of research on the antibacterial test of katokkon chili extract on *S. aureus* with concentrations of 80%, 55% and 30% provide strong inhibitory power, at a concentration of 5% provide moderate inhibitory power. The antibacterial activity of katokkon chili extract on *E. coli* at concentrations of 80%, 55%, and 30% provides moderate inhibitory power, and at a concentration of 5% provides weak inhibitory power.

Keywords: antioxidant, antibacterial, katokkon chili, *Staphylococcus aureus*, *Escherichia coli*.