

## ABSTRACT

*Staphylococcus aureus* has caused various infections in human, which are community and nosocomial, including folliculitis, impetigo, sepsis, endocarditis, osteomyelitis, biofilm related to implants, and also a major cause (65%) of recurrent infections in chronic wounds. This bacteria have high efficiency in forming biofilm which cause infection to occur continuously. Biofilm is a collection of interactive bacteria attached to a solid surface or each other, wrapped in an exopolysaccharide matrix. One of the virulence factors of *Staphylococcus* is biofilm, which facilitate persistence in the host body and weakening the host defense system, resulting in antimicrobials resistance within high concentration. *Centella Asiatica* (L) Urb. commonly known by the name pegagan, is one type of medicinal plant that has been used for a long time to treat disease. Pegagan has various types of secondary metabolites that can inhibit biofilm formation in bacteria effectively. The purpose of this study is to determine the effectiveness of pegagan extract in inhibiting the formation of *Staphylococcus aureus* biofilm. This research is true experimental laboratory which is carried out in vitro with the microtiter dish assay method. The results obtained in this study are in the form of optical density of the biofilm which is then processed using the SPSS application. The results showed that pegagan extract is effective in inhibiting the formation of *S. aureus* ATCC 25923 and clinical isolates biofilm. The conclusion of this study is that the ethanolic extract of pegagan (*Centella asiatica* (L) Urb.) can inhibit the formation of *Staphylococcus aureus* biofilm with the MBIC value of 2 mg/mL.

**Keywords:** *Staphylococcus aureus*, Biofilm, Antibiofilm, Pegagan