

## ABSTRACT

### **Testing Antibacterial Activity of *Aloe vera* Gel Ethanol extract against *Staphylococcus aureus***

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**Introduction :** *Staphylococcus aureus* is one of the normal flora in human skin, mucous membrane, oropharynx, gastrointestinal tract, and vagina which potentially becomes a pathogen. The excessive growth of *S. aureus* can cause many serious infection whether in human or animal. And nowadays, some of *S.aureus* have become resistant to antibiotic caused by its mutation. According to that case, researcher try to find an alternative solution by using *Aloe vera* gel ethanol extract that some other researchers say it contains *antraquinone*, *tannin*, *polysaccharide*, *flavonoid*, and *saponin* as anti bacterial compound. This research aimed to find out the effectiveness of *Aloe vera* gel ethanol extract in inhibiting *Staphylococcus aureus*.

**Methods :** This research is designed as an laboratorium experimental with difusion and dilusion method. Test performed with using 100%, 75%, 50%, 25%, and 0% concentration in difusion method and using 100%, 50%, 25%, 12,5%, 6,25%, 3,125%, 1,5625% concentration , positive control (+) and negative control (-) in dilution method.

**Results :** There is no inhibition zone in difusion method, also no minimum inhibitory concentration and no bactericidal concentration can be seen in dilution method that inhibit the growth of *Staphylococcus aureus*. This result might be related to the minimal amount of active compound in this sample, that is taken from *Aloe vera* gel. The amount of active compound can be influenced by the environment, difference in *Aloe's* age, degradation process and enzymatic reaction, difference in extraction method and also influenced by oxidation process when it's exposed to air.

**Conclusion :** Based on the results, anti bacterial activity of *Aloe vera* gel ethanol extract towards *Staphylococcus aureus* can not be determined in difusion and dilution method.

**Key words :** *Aloe vera gel*, *Staphylococcus aureus*, *antibacterial*, *difusion* and *dilusion method*