

DAYA HAMBAT EKSTRAK FLAVONOID BIJI KAKAO (*Theobroma cacao L*) TERHADAP PERTUMBUHAN BAKTERI *Lactobacillus sp.* PADA PLAK GIGI ANAK

INHIBITION FLAVONOID EXTRACT OF COCOA BEANS (*Theobroma cacao L*) TOWARDS *Lactobacillus sp.* BACTERIA GROWTH IN CHILDREN DENTAL PLAQUE

ABSTRACT

Background: Dental caries is an infectious progressive disease that caused by biofilm bacteria in the oral cavity. One of bacteria that cause caries is *Lactobacillus sp* which increased after the caries process was start, and cause caries more severe . Cacao beans are one of the herbs that can be used as a treatment because it has a variety of therapeutic effects such as antioxidant and antibacterial. **Purpose.** The aim of this study was to observe the inhibition flavonoid extract of cocoa beans towards bacteria *Lactobacillus sp* using optimum inhibitory concentration and minimum bactericidal concentration. **Methods:** This research was a laboratory experimental study. Dental plaque taken from the teeth of children aged 8-11 years, who were not in antibiotic medication and no systemic disease. It was cultured and isolate to get *Lactobacillus sp.* Cocoa beans was dried, crushed, soaked in 70% ethanol and stirred with kinetic maceration machine then diluted to obtain various concentrations. Optimum inhibitory concentration and minimum bactericidal concentration cocoa beans extracts towards *Lactobacillus sp.* were known by counting the growth of bacterial colonies on Natrium Agar media using of colony forming unit (CFU). **Results:** Flavonoid extract of cocoa beans had optimum inhibitory concentration against *Lactobacillus sp* at 3.125% concentration and minimum bactericidal concentration at 6.25% concentration. **Conclusion:** Minimum bactericidal concentration and optimum inhibitory concentration of flavonoid extract of cocoa beans towards *Lactobacillus sp* are each at 6.25% and 3.125% concentration.

Keywords: Caries, flavonoids, cocoa beans extract, *Lactobacillus sp*