

DAYA ANTIBAKTERI EKSTRAK KULIT MANGGIS (*Garcinia mangostana L.*) TERHADAP BAKTERI *Enterococcus faecalis*

ANTIBACTERIAL POTENCY OF MANGOSTEEN PERICARP EXTRACTS (*Garcinia mangostana L.*) AGAINST OF *Enterococcus faecalis*

ABSTRACT

Background. *Enterococcus faecalis* is an anaerob facultative bacterial that commonly found in persistent endodontic infection. This bacteria could compete with other microorganisms, invade dentinal tubules, and resist nutritional deprivation. The pericarp of mangosteen (*Garcinia mangostana L.*) has antibacterial potency because there was some active substances such as alpha mangosteen, saponin, flavonoid, tannine, and antocyanine. **Purpose.** The aim of the study was to know the antibacterial potency of mangosteen pericarp extracts which could inhibit and has bactericidal function to *Enterococcus faecalis*. **Method.** This research was a laboratory experimental study. A serial dilution method was used to determine the minimum inhibitory concentration of mangosteen (*Garcinia mangostana L.*) pericarp extracts and then to determine minimum bactericidal concentration is done with colony counting bacteriae in blood agar media. Growth of bacterial colonies in blood agar is calculated manually in colony forming unit (CFU). **Result.** At the concentration of 0.02%, 0.04% and 0.09% there are a decrease in the number of *Enterococcus faecalis* bacterial colonies when compared with positive control group. There are significant differences in each study group ($p < 0.05$). Minimum inhibitory concentration was revealed at 0.04% concentration from serial dilution test. At the concentration of 0.09% was not revealed any bacterial growth of *Enterococcus faecalis*, it was because the antibacterial effect of mangosteen pericarp extracts has reached minimum bactericidal concentration. **Conclusion.** The mangosteen pericarp extracts has antibacterial potency to against *Enterococcus faecalis*. The Minimum Inhibitory Concentration (MIC) of mangosteen pericarp extracts against of *Enterococcus faecalis* was at 0.04% concentration and the Minimum Bactericidal Concentration (MBC) was at 0.09% concentration.

Key words: The pericarp of Mangosteen (*Garcinia mangostana L.*), *Enterococcus faecalis*, Minimum Inhibitory Concentration (MIC), Minimum Bactericidal Concentration (MBC).