

**ABSTRACT**

**KONSENTRASI HAMBAT MINIMAL DAN KONSENTRASI BUNUH  
MINIMAL TANIN KULIT MANGGIS (*Garcinia mangostana* L.)  
TERHADAP BAKTERI *Enterococcus faecalis***

**MINIMUM INHIBITORY CONCENTRATION AND MINIMUM  
BACTERICIDAL CONCENTRATION OF TANNINS FROM MANGOSTEEN  
PEEL (*Garcinia mangostana* L.) AGAINST *Enterococcus faecalis* BACTERIA**

**Background.** *Enterococcus faecalis* is a gram-positive, non-motile microorganism that was identified as the most commonly found bacteria in the retreatment case of failure of endodontic therapy and root canal with persistent infection. These bacteria are resistant to existing intracanal medication so that required another alternative. The peel of the mangosteen fruit contains many natural compounds that are beneficial to the body such as xanthonenes, flavonoids, tannins, saponins, and anthocyanins. These active substances can be used as an antibacterial. Tannins in low concentrations can inhibit the growth of bacteria, whereas at high concentrations, tannins worked as an antimicrobial agent by coagulating bacterial protoplasm. **Purpose.** The aim of this study is to determine the minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC) of tannins from mangosteen peel against *Enterococcus faecalis*. **Method.** This research was experimental laboratories in vitro research. Tannins isolation derived from the mangosteen peel extract and performed serial dilution to obtain various concentrations. Tannin's value of MIC and MBC against *Enterococcus faecalis* obtained from calculating the number of colonies on nutrient agar medium. Growth of bacteria colonies was calculated manually in colony forming unit (CFU). **Result.** The percentages of bacteria colonies exposed by concentration 4.35%; 2.175%; 1.087%; 0.543%; and 0.272% of tannins from mangosteen peel in sequence were 0%; 0%; 0%; 9.32%; 27.96%; from the positive control. **Conclusion.** MIC and MBC of tannins from mangosteen peel (*Garcinia mangostana* L.) are each at concentration of 0.543% and 1.087% toward *Enterococcus faecalis* bacteria in vitro.

**Key words :** mangosteen peel, tannin, *Enterococcus faecalis*, minimum inhibitory concentration, minimum bactericidal concentration.