

**EFEKTIVITAS EKSTRAK KULIT BATANG KAYU MANIS
(*Cinnamomum burmannii*) SEBAGAI ANTIBIOFILM
*Enterococcus faecalis***

**THE EFFECTIVENESS OF CINNAMON BARK EXTRACT
(*Cinnamomun burmanii*) AS *Enterococcus faecalis*
ANTIBIOFILM**

ABSTRACT

Background: *Enterococcus faecalis* (*E.faecalis*) is a facultative anaerobic gram-positive coccus that has been frequently found in failed root canal-treated teeth in prevalence values ranging 77%. *E. faecalis* has ability to form biofilm so difficult to eliminate. Biofilm is composed primary of microbial cell and extracellular polymeric substrate (EPS). One of the natural substances that can be used as antibacterial and antibiofilm is cinnamon bark. Chemical components in cinnamon bark extract include essential oil, alkaloid, saponin, tannin, and flavonoid. **Purpose :** This study was to determine the effectiveness of cinnamon bark extract that can inhibit biofilm *E. faecalis*. **Method :** *E. faecalis* ATCC 29212 cultured in Trypticase Soy Broth (TSB) + 1% glucose. Cinnamon bark extract concentration in this study was 2% and 1%. To measure inhibition of biofilm using optical density (OD) and confocal laser scanning microscopy (CLSM). **Result :** Cinnamon bark extract with concentration of 1% showed a decrease of OD value than 2%. Cinnamon bark extract with concentration of 1% showed a decrease of EPS volume than 2%. **Conclusion :** Cinnamon bark extract as biofilm has ability to inhibit *E. faecalis* biofilm. Cinnamon bark extract with concentration of 1% more effective than concentration of 2% to inhibit *E. faecalis* biofilm.

Keywords : *cinnamon bark extract, E.faecalis, biofilm*