

**DAYA HAMBAT EKSTRAK KULIT BUAH COKLAT TERHADAP
AKTIVITAS ENZIM GTF *Enterococcus faecalis***

***THE INHIBITORY ABILITY OF COCOA POD HUSK EXTRACT ON
Enterococcus faecalis GTF ENZYME ACTIVITY***

ABSTRACT

Background. *The presence of Enterococcus faecalis in the root canal system is considered to be the main causes of endodontic failure. Enterococcus faecalis is capable to produce GTF enzyme, which plays an important role on the endodontic biofilm formation. It has higher resistance to antibiotic agents than its planktonic forms. Cocoa pod husk extract contains of numerous kind of phytochemical compounds such as flavonoids, tannins and terpenoids, so it is expected to have the inhibitory ability on Enterococcus faecalis GTF enzyme activity.* **Purpose.** *To understand the inhibitory ability of cocoa pod husk extract on Enterococcus faecalis GTF enzyme activity.* **Method.** *27 experimental samples was divided onto 3 groups: positive control group (Chlorhexidine gluconate 2%), negative control group (sterile distilled water) and 3,12% cocoa pod husk extract group. The enzymatic activity of each sample of groups was observed through fructose peak area by using HPLC, and expressed in percent (%). It converted into $\mu\text{mol/ml}$ fructose and defined as a unit of GTF enzyme activity. Data was collected and analysed using Kruskal – Wallis test.* **Result.** *The statistical analysis using Kruskal – Wallis showed a significant difference among the groups.* **Conclusion.** *3,12% cocoa pod husk extract has the inhibitory ability against Enterococcus faecalis GTF enzyme activity.*

Keywords : *Enterococcus faecalis, endodontic biofilm formation, GTF enzyme, HPLC, cocoa pod husk extract*