

UJI BIOKOMPATIBILITAS ENZIM GLUKANASE PADA GINGIVA TIKUS PUTIH (*Rattus novergicus*)

(BIOCOMPATIBILITY TEST BY GLUCANASE ENZYME AT WHITE RAT (*Rattus novergicus*) GINGIVA)

ABSTRACT

Background. Glucan which of has been produced by *Streptococcus mutans* play an important role in dental plaque forming and inisiate dental caries. The objective of this study was to investigate the accute inflammation effect and chronic inflammation effect to gingiva after application glucanase enzyme at rat gingiva. There are three source of glucanase enzym, glucanase isolate B7, B5, and B4. The enzym were intra-orally administered to the rat gingiva of different rat group. Evidence of inflammation effect was determined by PMN and vascular vasodilation for acute inflammation and plasma cell, macrophage, and lymphosit for chronic inflammation. The result of these study showed that there was no sign of inflammation at group negative control, but there was a sign of inflammation B7, B5, and B4 in fourth day date experiment. There was a significant difference ($p<0.05$) between rats control negative group with B7, B5, B4. In Hisopatological showed that lymfosit had different significant but it's normal. Its mean that the enzyme can't make gingival inflammation.

Keywords: glucanase enzyme, inflammation, gingival