

**UJI KADAR IgG SERUM TIKUS PUTIH  
YANG DIAPLIKASI DENGAN ENZIM  
GLUKANASE SEBAGAI KANDIDAT  
PENGHAMBAT PEMBENTUKAN PLAK GIGI**

**(THE CONTENT TESTING OF IgG ON WHITE RAT SERUM THAT IS  
APPLIED WITH GLUCANASE ENZYMES AS A INHIBITION CANDIDATE  
TO THE FORMATION OF DENTAL PLAQUE )**

**ABSTRACT**

**Background.** Glucanase enzymes isolate of bacteria B4, B5 and B7 isolated from decayed wood, soil and mud in vitro have proven effective in preventing dental plaque. Glucanase enzymes are a protein that have the potential to become antigen. The biocompatibility of these enzymes were tested immunologically viewed from immunohumoral response through increasing of IgG level in rat blood serum. **Purpose.** To identify body humoral immune response on glucanase enzymes exposure from isolate B4, B5, and B7 as candidate of dental plaque formation. **Method.** To measure rat serum IgG level with Indirect ELISA method viewed from optical density (OD) value by using ELISA Reader in wavelength  $\lambda 450$  m. **Results.** There were no significant difference on IgG level increase between B4 and B5 groups where  $P = (.171 > \alpha 0.05)$ . **Conclusion.** Glucanase enzymes from bacteria isolates B4 and B5 as candidate of dental plaque inhibition were not providing humoral reaction on rat body by observing the increase of IgG level.

**Key words:** Glucanase enzymes, immunology, IgG, Indirect ELISA.