

PENAPISAN DAYA INHIBITOR PROTEASE DAN PROTEASE
HASIL FERMENTASI *Streptomyces* spp. DARI TANAH KOMPOS
RUMAH KOMPOS BRATANG SURABAYA

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ABSTRACT

Streptomyces sp. have been known as excellent sources for natural products, include protease inhibitor and protease. In the preliminary research, ten isolates *Streptomyces* sp. were obtained from sample were taken from compost of *Rumah Kompos Bratang* (RKB) Surabaya. The purpose of this research were to screen *Streptomyces* spp. producing protease inhibitor and protease. Inhibitory activity against protease was screened by double layer agar assay at 32,5oC. *Streptomyces* sp. A16, C, Ep, F, G, and I did not show protease inhibitor activity, whilst protease was produced. Therefore, this research continued to study protease activity of *Streptomyces* spp. *Streptomyces* sp. C yielded the highest protease activity. Protease activity of *Streptomyces* sp. C started in exponential phase of growth and the maximum activity was observed in 108th hour at decline phase of growth.

Keyword: *Streptomyces* spp., protease inhibitor, protease