Immunostimulatory Effect of Ethanolic Extract of Tekelan Leaf 
(Chromolaena odorata L.) for Macrophage Activity on Mice Induced by 
Staphylococcus aureus

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ABSTRACT

This research was conducted to investigate the immunostimulant effect of 
ethanolic extract of tekelan leaf (Chromolaena odorata L.) for macrophage 
activity on mice induced by Staphylococcus aureus. Twenty five of two months 
old male mice BALB/c strain with 25-30 gram average body weight was divided 
into five group P0; P1; P2; P3; and P4. P0 is positive control was given Stimuno® 
product P1 is negative control was given CMC Na 0,5%, and P2, P3, P4 was 
given dosage 250 mg/kg BB, 500 mg/ kg BB, 750 mg/kg BB of ethanolic extract 
tekelan leaf. Provision of treatment carried out for 10 days after the first 
conducted animal acclimatization for 7 days and on day 11, mice were injected 
suspension of Staphylococcus aureus intraperitonial were 10⁷ CFU/ml are already 
synchronized with McFarland solution. Then wait for 1 hour and mice euthanized 
by neck dislocation and taken peritoneum liquid preparations to stained. Stained 
preparations in object glass with Giemsa stain and observed under a microscope 
with 400X magnification by counted the number of active macrophages every 10 
field of view. The result showed the ethanolic extract of tekelan leaf increased 
activity of active macrophage.

Key word: Tekelan, Chromolaena odorata L., Immunostimulant, Macrophage