

PENGARUH PEMBERIAN EKSTRAK ETANOL DAUN BOSI-BOSI (*Timonius flavescens* (Jacq.) Baker) SEBAGAI IMUNOSTIMULAN PADA TIKUS PUTIH (*Rattus norvegicus*)

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ABSTRAK

Penelitian ini dilakukan pada pengaruh pemberian ekstrak etanol daun bosibosi (*Timonius flavescens*) terhadap peningkatan jumlah leukosit, limfosit, granulosit, bobot limpa dan berat badan pada tikus (*Rattus norvegicus*) jantan. Ekstrak etanol daun bosibosi menggunakan metode maserasi yang diinduksi dengan antigen sel darah merah domba (SDMD) dan perlakuan ekstrak etanol daun bosibosi. Rancangan penelitian menggunakan rancangan acak lengkap (RAL). Dimana 24 ekor tikus putih jantan tersebut dibagi dalam 6 kelompok uji, yang masing-masing kelompok uji terdiri dari 4 ekor tikus. Antigen SDMD 2% diberikan melalui injeksi intraperitoneal dan pemberian ekstrak etanol daun bosibosi diberikan secara oral selama 14 hari berturut-turut. Penghitungan jumlah leukosit, limfosit, dan granulosit digunakan alat *Digital Auto Hematology Analyzer tool (RT-7600)*. Kelompok kontrol negatif (KN) tanpa perlakuan, kelompok kontrol positif sakit (KPS) diberikan SDMD 2%, kelompok positif obat diberikan SDMD 2% dan obat stimuno 50 mg/kgBB, kelompok dosis III (DIII) diberikan SDMD 2% dan ekstrak etanol daun bosibosi 2.49 gr/kgBB, kelompok dosis II (DII) diberikan SDMD 2% dan ekstrak etanol daun bosibosi 1.245 gr/kgBB, kelompok dosis I (DI) diberikan SDMD 2% dan ekstrak etanol daun bosibosi 0.622 gr/kgBB. Hasil penelitian menunjukkan bahwa ekstrak etanol daun bosibosi berpengaruh signifikan terhadap peningkatan jumlah leukosit, limfosit, granulosit, bobot limpa dan berat badan tikus jantan ($P < 0.05$) jika dibandingkan dengan perlakuan obat stimuno 50 mg/kgBB, antigen SDMD 2%, dan kontrol negatif. Hal ini menunjukkan bahwa daun bosibosi memiliki potensi sebagai imunostimulan.

Kata kunci: Bosibosi, ekstrak etanol, leukosit, limfosit, granulosit, limpa, imunostimulan.

THE EFFECT ETHANOLIC EXTRACT OF BOSIBOSI (*Timonius flavescens* (Jacq.) Baker) LEAF ON RATS (*Rattus norvegicus*) AS IMMUNOSTIMULANT

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ABSTRACT

It has been done the research that was intend to know the effect of ethanol extract of leaves bosibosi (*Timonius flavescens*) to the totally of leukocytes, lymphocyte, granulocytes, spleen and weight in male rats (*Rattus norvegicus*). The dried leaves were extracted using ethanol with Maceration methods. The totally of leukocytes, lymphocyte, granulocytes, spleen and weight in male rats are conducted using sheep red blood cell (SRBC) as antigen and treated with ethanolic extract of leaves bosibosi. The study used an undirectional completely randomized design. Subjects were 24 male rats randomly assigned to 6 groups consisting of 4 rats. Induction antigen sheep red blood cells 2% was performed by intraperitoneal injection and willow ethanolic extract of leaves bosibosi was given orally for 14 consecutive days. Moreover, the total leucocyte, lymphocyte, granulocytes, spleen and weight count were used of Digital Auto Hematology Analyzer tool (RT-7600). Group negative control (NC) were untreated control, group diseases control (DC) only induced with antigen sheep red blood cells 2%, group positive medicine control (PMC) were induced with antigen sheep red blood cells 2% and treated stimuno medicine 50 mg/kgBW, group third doses (TD) were induced with antigen sheep red blood cells 2% and treated ethanolic extract of leaves bosibosi of 2.49 gr/kgBW, group second doses (SD) were induced with antigen sheep red blood cells 2% and treated ethanolic extract of leaves bosibosi of 1.245 gr/kgBW, group first doses (FD) were induced with antigen sheep red blood cells 2% and treated ethanolic extract of leaves bosibosi of 0.622 gr/kgBW. The result of this study showed that ethanolic extract of leaves bosibosi significantly increase for the totally of leukocytes, lymphocyte, granulocytes, spleen and weight of male rats ($P < 0.05$) as compared to the treated stimuno medicine 50 mg/kgBW, antigen sheep red blood cells 2%, and negative control. The conclusion were induced of antigen sheep red blood cells 2% can reduce leukocytes, lymphocyte, granulocytes, spleen of male rats and treated ethanolic extract of leaves bosibosi low dose 0.622 gr/kgBW afford increased totally of leukocytes, lymphocyte, granulocytes, spleen and weight of male rats. This indicates that the leaf of Bosi-bosi has potential as an immunostimulant.

Keywords: Bosibosi, ethanolic extract, leukocytes, lymphocytes, granulocytes, spleen, immunostimulant