

INTISARI

SHOLIAH, I., 2024 UJI AKTIVITAS EKSTRAK ETANOL DAUN SUKUN (*Artocarpus altilis*) PADA INDEKS FAGOSITOSIS MENCIT (*Mus musculus*), PROPOSAL, PROGAM STUDI S1 FARMASI FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA. Dimimbing oleh Dr. apt. Ika Purwidyaningrum, S.Farm., M.Sc dan apt. Yane Dila Keswara, S. Farm., M. Sc.

Daun sukun memiliki kandungan senyawa flavonoid, alkaloid, tanin, saponin, terpenoid dan antrakuinon. Daun sukun (*Artocarpus altilis*) memiliki sifat immunosupresan. Tujuan dilakukan penelitian ini untuk mengetahui pengaruh konstanta, ideks fagositosis mencit dan memberikan efek immunosupresan dalam penekanan gejala lupus.

Dalam penelitian ini, ekstrak etanol dari daun sukun yang diberikan kepada mencit putih dalam tiga variasi dosis, yaitu 140 mg/KgBB, 280 mg/KgBB, dan 560 mg/ KgBB. Uji efektivitas ekstrak ini dilakukan dengan metode carbon clearance. Ekstrak dibuat dengan metode maserasi menggunakan larutan etanol 70%. Penelitian menggunakan 25 ekor mencit yang dibagi dalam 5 kelompok yaitu kelompok kontrol negatif, kelompok kontrol positif dan kelompok perlakuan diberi 3 dosis bertingkat, yaitu 140 mg/KgBB, 280 mg/KgBB, dan 560 mg/KgBB. Perlakuan selama 7 hari dan pada hari ke 8 hewan uji diinduksi suspensi karbon secara intravena melalui ekor mencit kemudian mencit dibedah untuk diambil organ limpa. Selanjutnya pengukuran absorbansi menggunakan panjang gelombang 556 nm, setelah itu dihitung jumlah persen leukosit dan persen bobot limpa. Data yang diperoleh dianalisis menggunakan uji One Way Annova.

Hasil penelitian menunjukkan bahwa pemberian ekstrak etanol daun sukun pada mencit putih dengan dosis 280 mg/KgBB merupakan dosis efektif dan dosis 560 mg/KgBB dosis optimal yang mampu menurunkan aktivitas sistem kekebalan tubuh. Hasil indeks fagositosis 280 mg/KgBB, dan 560 mg/KgBB menunjukan bahwa senyawa aktif dalam daun sukun berpotensi digunakan sebagai immunosupresan.

Kata kunci : Daun sukun, ekstrak etanol, immunosupresan, fagositosis, *carbon clearance*.

ABSTRACT

SHOLIAH, I., 2024 ACTIVITY TEST OF ETANOL EXTRACTION OF SUKUN (*Artocarpus altilis*) LEAVES ON FAGOSITOSIS INDEX OF MENCITES (*Mus musculus*), PROPOSAL, PROGAM STUDY S1 PHARMACY FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA. Supervised by Dr. apt. Ika Purwidyaningrum, S.Farm., M.Sc and apt. Yane Dila Keswara, S. Farm., M. Sc.

Breadfruit leaves contain flavonoids, alkaloids, tannins, saponins, terpenoids and anthraquinones. Breadfruit leaves (*Artocarpus altilis*) have immunosuppressant properties. The purpose of this study was to determine the effect of mice phagocytosis and immunosuppressant effects in suppressing lupus symptoms.

In this study, the ethanol extract from breadfruit leaves was administered to white mice in three dose variants, namely 140 mg/KgBB, 280 mg/KgBB and 560 mg/KgBB. The efficacy test of this extract was performed using the carbon clearance method. The extract was prepared by maceration with 70% ethanol solution. For the study, 25 mice were used, which were divided into 5 groups, namely the negative control group, the positive control group and the treatment group, which received 3 graded doses, namely 140 mg/KgBB, 280 mg/KgBB and 560 mg/KgBB. The treatment lasted for 7 days, and on the 8th day, the experimental animals were administered the carbon suspension intravenously through the tail of the mice, then the mice were dissected to remove the spleen organ. Then the absorbance was measured at a wavelength of 556 nm, whereupon the number of leukocytes in percent and the weight of the spleen in percent were calculated. The data obtained were analyzed using the one-way ANOVA test

The results showed that the administration of ethanol extract of breadfruit leaves to white mice at a dose of 280 mg/KgBB is an effective dose and a dose of 560 mg/KgBB is the optimal dose that can reduce the activity of the immune system. The phagocytosis index results of 280 mg/KgBB, and 560 mg/KgBB show that the active compounds in breadfruit leaves have the potential to be used as immunosuppressants.

Keywords: Breadfruit leaf, ethanol extract, immunosuppressant, phagocytosis, *carbon clearance*