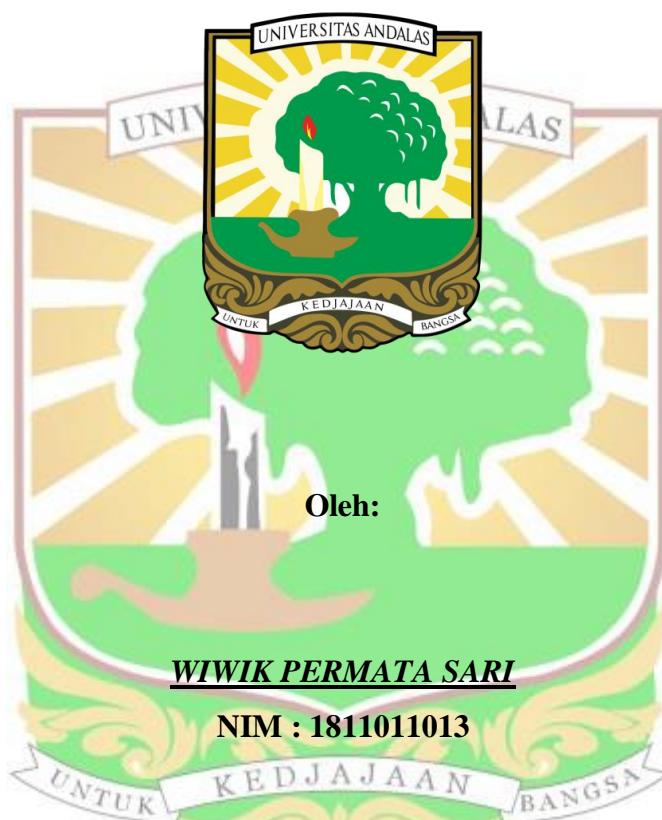


**SKRIPSI SARJANA FARMASI**

**EFEK FRAKSI BUTANOL DAUN SUNGKAI TERHADAP AKTIVITAS  
DAN KAPASITAS FAGOSITOSIS SEL MAKROFAG DAN JUMLAH  
SERTA PERSENTASE LEUKOSIT MENCIT PUTIH JANTAN  
DIINDUKSI VAKSIN SARS-COV-2**



**FAKULTAS FARMASI  
UNIVERSITAS ANDALAS  
PADANG  
2022**

## **ABSTRAK**

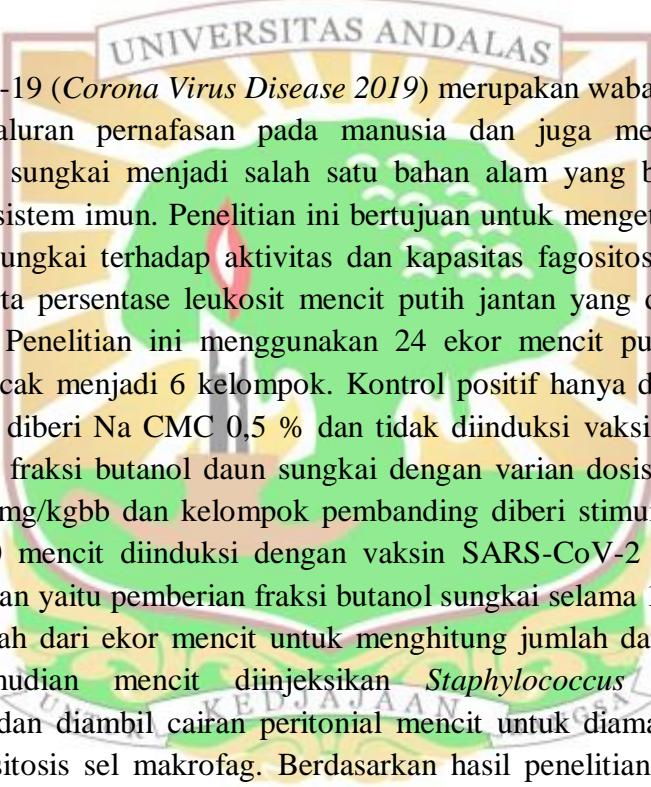
# **EFEK FRAKSI BUTANOL DAUN SUNGKAI TERHADAP AKTIVITAS DAN KAPASITAS FAGOSITOSIS SEL MAKROFAG DAN JUMLAH serta PERSENTASE LEUKOSIT MENCIT PUTIH JANTAN DIINDUKSI VAKSIN SARS-COV-2**

**Oleh :**

**Wiwik Permata Sari**

**NIM : 1811011013**

**(Program Studi Sarjana Farmasi)**



COVID-19 (*Corona Virus Disease 2019*) merupakan wabah penyakit yang menginfeksi saluran pernafasan pada manusia dan juga menyerang sistem imun. Tanaman sungkai menjadi salah satu bahan alam yang berpotensi dapat meningkatkan sistem imun. Penelitian ini bertujuan untuk mengetahui efek fraksi butanol daun sungkai terhadap aktivitas dan kapasitas fagositosis sel makrofag dan jumlah serta persentase leukosit mencit putih jantan yang diinduksi vaksin SARS-CoV-2. Penelitian ini menggunakan 24 ekor mencit putih jantan yang dibagi secara acak menjadi 6 kelompok. Kontrol positif hanya diinduksi vaksin, kontrol negatif diberi Na CMC 0,5 % dan tidak diinduksi vaksin, kelompok uji diberi suspensi fraksi butanol daun sungkai dengan varian dosis 1 mg/kgbb, 10 mg/kgbb, 100 mg/kgbb dan kelompok pembanding diberi stimuno 50 mg/kgbb. Pada hari ke-0 mencit diinduksi dengan vaksin SARS-CoV-2 dan dilanjutkan dengan perlakuan yaitu pemberian fraksi butanol sungkai selama 14 hari. Hari ke-15 diambil darah dari ekor mencit untuk menghitung jumlah dan persentase sel leukosit. Kemudian mencit diinjeksikan *Staphylococcus aureus* secara intraperitoneal dan diambil cairan peritoneal mencit untuk diamati aktivitas dan kapasitas fagositosis sel makrofag. Berdasarkan hasil penelitian terlihat adanya peningkatan aktivitas dan kapasitas fagositosis sel makrofag serta jumlah dan persentase leukosit setelah pemberian fraksi butanol daun sungkai. Peningkatan paling optimal terjadi pada dosis 100 mg/kgbb. Berdasarkan parameter uji yang telah dilakukan dapat disimpulkan bahwa fraksi butanol daun sungkai (*Peronema canescens.Jack*) memiliki aktivitas imunostimulan terhadap mencit putih jantan (*Mus musculus L.*).

Kata Kunci : COVID-19 (*Corona Virus Disease 2019*), Imunostimulan, Sungkai (*Peronema canescens.Jack*)

## **ABSTRACT**

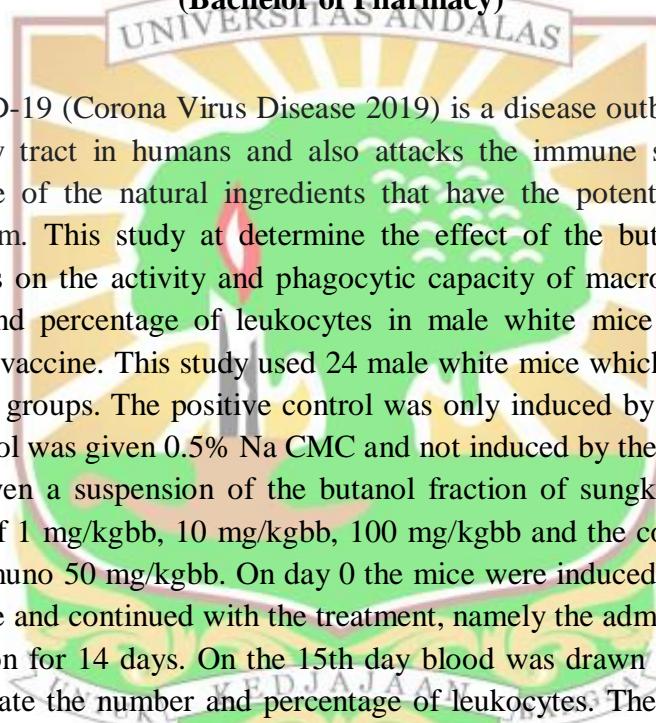
# **THE EFFECT OF BUTANOL FRACTION OF SUNGKAI LEAVES ON ACTIVITY AND CAPACITY PHAGOCYTIC OF MACROPHAGE CELLS AND THE NUMBER AND PERCENTAGE OF LEUCOCYTES IN MILE WHITE MICE INDUCED SARS-COV-2 VACCINE**

**By :**

**Wiwik Permata Sari**

**Student ID Number : 1811011013**

**(Bachelor of Pharmacy)**



COVID-19 (Corona Virus Disease 2019) is a disease outbreak that infects the respiratory tract in humans and also attacks the immune system. Sungkai plants are one of the natural ingredients that have the potential to boost the immune system. This study at determine the effect of the butanol fraction of sungkai leaves on the activity and phagocytic capacity of macrophage cells and the number and percentage of leukocytes in male white mice induced by the SARS-CoV-2 vaccine. This study used 24 male white mice which were randomly divided into 6 groups. The positive control was only induced by the vaccine, the negative control was given 0.5% Na CMC and not induced by the vaccine, the test group was given a suspension of the butanol fraction of sungkai leaves with a dose variant of 1 mg/kgbb, 10 mg/kgbb, 100 mg/kgbb and the comparison group was given stimuno 50 mg/kgbb. On day 0 the mice were induced with the SARS-CoV-2 vaccine and continued with the treatment, namely the administration of the butanol fraction for 14 days. On the 15th day blood was drawn from the tails of mice to calculate the number and percentage of leukocytes. Then the mice were injected with *Staphylococcus aureus* intraperitoneally and the mice's peritoneal fluid was taken to observe the activity and phagocytic capacity of macrophage cells. Based on the results of the study, it was seen that there was an increase in the activity and phagocytic capacity of macrophage cells as well as the number and percentage of leukocytes after administration of the butanol fraction of sungkai leaves. The most optimal increase occurs at a dose of 100 mg/kgbb. Based on the test parameters that have been carried out, it can be concluded that the butanol fraction of sungkai leaves (*Peronema canescens* Jack.) has immunostimulatory activity against white male mice (*Mus musculus* L).

**Keywords:** COVID-19 (Corona Virus Disease 2019), Immunostimulant, Sungkai (*Peronema canescens*.Jack)