ABSTRAK

Nama	: Suci Asriatul Nirmala
Program Studi	: Farmasi
Judul	: Formulasi dan Evaluasi Gel Ekstrak Daun Sukun (*Artocarpus altilis* (Park.) Fosberg sebagai Inhibitor Tirosinase secara In Vitro

Daun Sukun (*Artocarpus altilis*) mengandung senyawa flavonoid yang dapat menghambat aktivitas enzim tirosinase yang berkhasiat sebagai pencerah kulit. Penelitian ini bertujuan untuk mengetahui apakah ekstrak etil asetat daun sukun yang mengandung flavonoid memiliki kemampuan sebagai antitirosinase dan dapat dibuat sediaan gel antitirosinase. Gel dibuat dengan variasi konsentrasi ekstrak etil asetat daun sukun, yaitu 0,5%, 1%, 2% dan 4%. Dilakukan uji evaluasi pada sediaan gel yang sudah dibuat dengan variasi konsentrasi ekstrak etil asetat daun sukun yaitu uji organoleptis, uji homogenitas, uji daya sebar, uji daya lekat, uji pH, uji viskositas, uji sifat alir, cycling test dan uji sentrifugasi. Pada uji stabilitas fisiknya dilakukan dengan menyimpan gel pada suhu 4°C selama 24 jam lalu dipindahkan ke dalam oven bersuhu 40°±2°C selama 24 jam (satu siklus) uji dilakukan selama 6 siklus. Dilakukan uji daya hambat tirosinase sediaan gel tirosinase yang mengandung ekstrak kental etil asetat daun sukun. Dengan metode *Microplate Reader*. Hasil uji daya hambat tirosinase dari gel yang mengandung ekstrak kental etil asetat daun sukun 0,5%, 1%, 2% dan 4% berturut – turut yaitu 40,65%, 50,61%, 47,56% dan 44,85%. Dapat disimpulkan bahwa formula 2 dengan konsentrasi ekstrak etil asetat daun sukun 1% memberikan aktivitas antitirosinase yang lebih baik yaitu 50,61%.

Kata Kunci : *aktivitas penghambatan tirosinase, ekstrak etil asetat daun sukun (Artocarpus altilis), gel.*

ABSTRACT

Name : Suci Asriatul Nirmala

Study Program : Pharmacy

Title : *Formulation and Evaluation of Breadfruit Leaf Extract (Artocarpus altilis (Park.) Fosberg as In Vitro Tyrosinase Inhibitor*

Breadfruit leaves (Artocarpus altilis) contain flavonoid compounds that can inhibit the activity of the tyrosinase enzyme which is efficacious as a skin lightening. This study aims to determine whether the ethyl acetate extract of breadfruit leaves containing flavonoids has the ability as antitirosinase and antitirosinase gel preparations can be made. Gel is made with variations in the concentration of ethyl acetate extract of breadfruit leaves, which are 0.5%, 1%, 2% and 4%. Evaluation tests were carried out on gel preparations that had been made with variations in the concentration of ethyl acetate extract of breadfruit leaves, namely organoleptic test, homogeneity test, spreadability test, adhesion test, pH test, viscosity test, flow properties test, cycling test and centrifugation test. The physical stability test is carried out by storing the gel at 4 ° C for 24 hours and then transferred to an oven at 40 ° ± 2 ° C for 24 hours (one cycle) the test is carried out for 6 cycles. Inhibition of tyrosinase was tested using a tyrosinase gel containing a thick extract of breadfruit ethyl acetate. With the Elisa Reader method. The results of tyrosinase inhibition test from gels containing breadfruit ethyl acetate viscous extract 0.5%, 1%, 2% and 4% were 40.65%, 50.61%, 47.56% and 44.85 %. It can be concluded that formula 2 with a concentration of 1% breadfruit leaf ethyl acetate extract gives a better antitirosinase activity that is 50.61%.

Keywords: tyrosinase inhibitory activity, ethyl acetate extract of breadfruit leaves (Artocarpus altilis), gel.