INTISARI

Penelitian ini bertujuan untuk mengetahui efek hepatoprotektif ekstrak metanol biji alpukat (*Persea americana* Mill.) pada tikus jantan terinduksi CCl_4 dengan cara menurunkan aktivitas serum Alanine Aminotransferase (ALT) dan Aspartate Aminotransferase (AST) dan untuk mengetahui berapa dosis optimum ekstrak metanol biji alpukat untuk menimbulkan efek hepatoprotektif pada tikus jantan terinduksi CCl_4.

Penelitian ini bersifat eksperimental murni dengan rancangan acak lengkap pola searah. Penelitian ini menggunakan tikus jantan galur Wistar, umur 2-3 bulan dan berat ± 150-250 gram dibagi secara acak ke dalam tujuh kelompok perlakuan. Kelompok 1 (kontrol hepatotoksin) diberi CCl_4 2 ml/kgBB. Kelompok II (kontrol negatif) diberi *Olive Oil*. Kelompok III (kontrol ekstrak) diberi esktrak metanol biji alpukat dosis 1.400 mg/kgBB, Kelompok IV (kontrol positif) diberi *Curliv*® 4,05 ml/kgBB, Kelompok V-VII (perlakuan) ekstrak metanol biji alpukat dosis 1400; 700; dan 350 mg/kgBB sekali sehari selama 6 hari berturut-turut kemudian pada hari ke tujuh semua kelompok perlakuan diberi larutan CCl_4 dosis 2 ml/kgBB. Pada jam ke 24 sesudahnya darah diambil dari sinus orbitalis mata untuk ditetapkan aktivitas ALT-AST serum. Data ALT-AST serum yang didapat dianalisis untuk mengetahui perbedaan aktivitas ALT-AST serum antar kelompok.

Hasil penelitian menunjukkan ekstrak metanol-air biji *Persea americana* Mill. memberikan efek hepatoprotektif dengan menurunkan aktivitas serum ALT dan AST pada tikus yang terinduksi karbon tetraklorida. Ada kekerabatan dosis dengan respon yang muncul terlihat dari semakin besar dosis praperlakuan ekstrak metanol-air biji *Persea americana* Mill. yang diberikan, maka semakin besar efek hepatoprotektif. Jadi ekstrak metanol-air biji *Persea americana* Mill. dosis 1400; 700; dan 350 mg/kgBB memiliki efek hepatoprotektif berturut-turut 96,6; 87,2; dan 78,6%. Nilai dosis optimum hepatoprotektif ekstrak metanol-air biji *Persea americana* Mill. sebesar 1400 mg/kgBB.

Kata kunci : hepatoprotektif, ekstrak metanol biji buah alpukat (*Persea americana* Mill.), CCl_4

ABSTRACT

This study aims to determine the hepatoprotective effect of methanol extract of avocado's seed (*Persea americana* Mill .) in male rats induced CCl_4 by decreasing the alanine aminotransferase (ALT) and aspartate aminotransferase (AST) serum activity and to determine the optimum dose of methanol extract of avocado's seed to give hepatoprotective effects in male rats induced CCl_4.

This research was experimentally pure with direct sampling design. This research used male Wistar rats, age 2-3 months and weight ± 150-250 g. The rats were divided into seven treatment groups randomly. Group 1 (hepatotoxins control) was given CCl_4 2 ml/kgBW . Group II (negative control) was given *Olive Oil* . Group III (extracts control) was given methanol extract of avocado's seed at dose 1400 mg/kgBW, Group IV (positive control) was given Curliv ® at dose 4.05 ml/kgBW , group V - VII (treatment) were given methanol extract of avocado's seed at dose 1400 ; 700 , and 350 mg/kgBW. The extract was given once daily for 6 days and then on the seventh day, all treatment groups were given CCl_4 at dose of 2 ml/kgBW. Twenty-four hours later, the blood was collected from the orbital sinus eye to be measured AST and ALT serum activity. ALT - AST data were analyzed statistically.

Based of the results of the measurement, methanol - water extract of the seeds of *Persea americana* Mill. has hepatoprotective effect by decreasing the activity of ALT and AST serum in rats induced carbon tetrachloride . There was a relation between dose and response which was seen from higher dose of methanol – water extract of the seeds of *Persea americana* Mill. given in pretreatment, will give higher hepatoprotective effect. Thus the methanol - water extract of seeds of *Persea americana* Mill. at dose 1400 ; 700 ; and 350 mg/kgBW have hepatoprotective effects respectively 96.6 ; 87.2 , and 78.6 % and the optimum dose of methanol - water extract as hepatoprotector was 1400 mg/kgBW.

Keyword : hepatoprotective, methanol-water extract of avocado's seeds (*Persea americana* Mill.), CCl_4