INTISARI

Penelitian ini bertujuan untuk mendapatkan informasi mengenai pengaruh nefroprotektif dan dosis efektif pemberian jangka panjang ekstrak metanol-air biji *Persea americana* Mill. terhadap penurunan kadar serum kreatinin dan gambaran histologis ginjal tikus terinduksi karbon tetraklorida.

Penelitian ini merupakan penelitian eksperimental murni dengan rancangan acak lengkap pola searah. Metode yang dilakukan adalah pengukuran kadar kreatinin serum pada jam ke-48 setelah pemberian karbon tetraklorida sebagai nefrotoksin. Sebanyak 30 ekor tikus jantan galur Wistar, umur 2-3 bulan, dan berat ± 150-250 gram dibagi secara acak ke dalam enam kelompok perlakuan. Kelompok I (kontrol nefrotoksin) diberi karbon tetraklorida dengan dosis 2 ml/kg BB secara i.p, kelompok II (kontrol negatif) diberi *olive oil* dosis 2 ml/kg BB secara i.p, kelompok III (kontrol ekstrak) diberi ekstrak metanol-air biji *Persea americana* Mill., kelompok IV-VI (perlakuan) masing-masing diberi ekstrak metanol-air biji *Persea americana* Mill. dengan tiga peringkat dosis, yaitu masing-masing 0,35; 0,7; 1,4 g/kgBB secara oral sekali sehari selama enam hari berturut-turut, kemudian pada hari ke tujuh semua perlakuan diberi karbon tetraklorida dosis 2 ml/kg BB secara i.p. Pada jam ke-48 sesudahnya, darah diambil dari sinus orbitalis mata untuk penetapan kadar serum kreatinin dan data dihitung menggunakan ANOVA.

Berdasarkan penelitian ini, ekstrak metanol-air biji *Persea americana* Mill. memberikan efek nefroprotektif yang ditunjukkan dengan adanya penurunan kadar serum kreatinin pada tikus Wistar terinduksi karbon tetraklorida. Efek nefroprotektif dari ekstrak metanol-air *Persea americana* Mill. dosis 0,35; 0,7; and 1,4 g/kg BB berturut-turut adalah 123,81%, 104,76%, dan 80,95%. Gambaran histologis organ ginjal kelompok IV-VI menunjukkan tidak ada perubahan patologi spesifik.

Kata kunci : *Persea americana*, metanol-air, nefroprotektif, karbon tetraklorida

ABSTRACT

This present research aims to get information about nephroprotective effect of water-methanol extract *Persea. americana* Mill. seed for reducing creatinine serum level and kidney histology preview in rats induced by carbon tetrachloride and get an effective dose.

This research was done with direct sampling design. This experiment used Wistar male rats, at the age of 2-3 months, and weight ± 150-250 g. The rats were devided into six treatment groups. The first group (nephrotoxin control) was given carbon tetrachloride 2 ml/kgBW i.p. Then, the second group (negative control) was given *olive oil* 2 ml/kg BW. The third group (extract control) was given water-methanol extract of to *P. americana* seed at the dose of 1.4 g/kg BW. Fourth until six groups were given methanol-water extract of *Persea americana* Mill. seed at the dose of 0.35; 0.7; and 1.4 g/kg BW orally once a day for six days successively and then in the seventh day all of the teatment group were given carbon tetrachloride 2 ml/kgBW by i.p. Fourty-eight hours later, blood was collected from the orbital sinus eye to be measured creatinine serum level. Then it was analyzed statistically.

Based on the result of this research, water-methanol extract *P. ameriana* Mill. seed give nephroprotective effects for reducing of creatinine serum level in rats induced by carbon tetrachloride. There was a relation between dose and response which was seen from the more over the biggest dose, response of reducing of creatinine serum level was decrease. Nephroprotective effect with dose of 0,35; 0,7; and 1,4 g/kgBW successively were 123.81%, 104.76%, and 80.95%. Kidney histology preview in the grup IV-VI show there were no alteration in spesific patology. This study showed that extract water-methanol had nephroprotective effect.

Keyword : *Persea americana* Mill., water-methanol, nephroprotective, carbon tetrachloride