

INTISARI

Penelitian ini bertujuan untuk mengetahui pengaruh pemberian jangka panjang fraksi heksan-etanol ekstrak metanol-air daun *Macaranga tanarius* L. (FHEMM) pada tikus terinduksi karbon tetraklorida dengan melihat peningkatan kadar albumin serta mengetahui adanya kekerabatan antara dosis pemberian FHEMM pada penggunaan jangka panjang dengan peningkatan kadar albumin pada tikus terinduksi karbon tetraklorida.

Penelitian ini merupakan penelitian eksperimental murni dengan rancangan acak lengkap pola searah. Penelitian ini menggunakan 30 ekor tikus betina galur Wistar, umur 2-3 bulan, dan berat \pm 130-180 g. Tikus dibagi secara acak ke dalam enam kelompok perlakuan. Kelompok I (kontrol negatif) diberi CMC-Na 1% (137,14 mg/kgBB p.o). Kelompok II (kontrol hepatotoksin) diberi karbon tetraklorida 2 mL/KgBB secara i.p. Kelompok III (kontrol fraksi) diberi FHEMM *Macaranga tanarius* L. dosis 137,14 mg/kgBB tanpa pemberian karbon tetraklorida. Kelompok IV, V, dan VI (perlakuan) berturut-turut diberikan FHEMM *M. tanarius* L. dosis 34,28; 68,57; dan 137,14 mg/kgBB secara peroral sekali sehari selama enam hari berturut-turut dan pada hari ketujuh semua perlakuan diberi karbon tetraklorida dosis 2 mL/KgBB secara i.p. Darah diambil setelah 24 jam dari sinus orbitalis mata untuk diukur kadar albumin serum. Data kadar albumin dianalisis dengan uji *Shapiro-Wilk* dilanjutkan analisis dengan *Kruskal-Wallis* lalu uji *Mann-Whitney* untuk mengetahui perbedaan kadar albumin serum antar kelompok.

Hasil penelitian menunjukkan bahwa pemberian jangka panjang FHEMM mempengaruhi kadar albumin pada tikus terinduksi karbon tetraklorida dan tidak adanya kekerabatan antara dosis FHEMM dengan peningkatan kadar albumin pada tikus terinduksi karbon tetraklorida.

Kata kunci : *Macaranga tanarius*, hepatoprotektif, karbon tetraklorida, albumin, jangka panjang

ABSTRACT

This study investigated the long-term influences of the hexane-ethanol fraction methanol-water extracts of *Macaranga tanarius* L. leaves (FHEMM) against carbon tetrachloride induced hepatotoxicity in rats. The albumin level in serum were measured for the evaluation of hepar function. This study also determined the relationship between the dose administration of FHEMM on the use of long-term with increased level of albumin serum in rat induced by carbon tetrachloride.

This research was done with purely experimental with a completely randomized design pattern undirectional. This research used 30 female Wistar rats, 2-3 months old, and weighing 130-180 grams. The rats were divided into six groups of five each. Group I (negative control) were treated with CMC-Na 1% (137.14 mg/kgBW p.o). The second group (hepatotoxin control) were additionally treated with carbon tetrachloride 2 mL/kgBW intraperitoneally. The third group (fraction control) received the FHEMM (137.14 mg/kgBW p.o) without carbon tetrachloride. The fourth until sixth group (treatment) were given FHEMM dose 34.28; 68.57; and 137.14 mg/kgBW orally once a day for six days successively and then in the seventh day all of the treatments group were given carbon tetrachloride 2 mL/kgBW by i.p. Twenty-four hours later, blood was collected from the orbital sinus eye to be measured albumin serum. Data of albumin level which obtained were analyzed using *Shapiro-Wilk* and continued analyze used *Kruskal-Wallis* and *Mann-Whitney* test was used to determine the differences in albumin serum level of each group.

The result showed that extended of FHEMM influences albumin serum level in rats which induced carbon tetrachloride and there wasn't relationship between the three doses of FHEMM dose with increased levels of albumin in rats induced by carbon tetrachloride.

Keywords : *Macaranga tanarius*, hepatoprotective, carbon tetrachloride, albumin, long-term.