

### ABSTRAK

Penelitian ini bertujuan untuk mengetahui efek hepatoprotektif pemberian jangka panjang daun *Tithonia diversifolia* (Hemsley) A. Gray pada tikus jantan galur *Sprague Dawley* terinduksi karbon tetraklorida berdasarkan penurunan aktivitas SGPT dan SGOT. Penelitian ini bersifat ekperimental murni dengan rancangan acak lengkap pola searah. Hewan uji yang digunakan yaitu tikus jantan, umur 2-3 bulan dengan berat  $\pm 150-250$  gram. Tiga puluh tikus dibagi acak dalam 6 kelompok perlakuan. Kelompok I merupakan kontrol hepatotoksin karbon tetraklorida 2,0 mL/kgBB dan pencuplikan darah pada jam ke-24 setelah pemberian karbon tetraklorida. Kelompok II merupakan kontrol negatif olive oil 2,0 mL/kgBB dan pencuplikan darah pada jam ke-24 setelah pemberian olive oil. Kelompok III merupakan kontrol infusa dosis 3,0 g/kgBB yang diberikan selama 6 hari berturut-turut dan pencuplikan darah pada hari ke-7. Kelompok IV-IV merupakan perlakuan dosis infusa diberi infusa daun *Tithonia diversifolia* (Hemsley) A. Gray dengan dosis 0,75; 1,5; 3,0 g/kgBB secara p.o selama 6 hari berturut-turut dan hari ke-7 diberi karbon tetraklorida dosis 2,0 mL/kgBB. Pengambilan darah dilakukan setelah 24 jam melalui sinus orbitalis, lalu dilakukan pengukuran aktivitas SGPT dan SGOT. Aktivitas SGPT dan SGOT dianalisis dengan metode *Saphiro Wilk* dan diperoleh distribusi data tiap kelompok normal maka dilanjutkan dengan analisis *one way ANOVA 95%* dan dilanjutkan uji *Post Hoc*. Hasil penelitian menunjukkan bahwa pemberian infusa daun *Tithonia diversifolia* (Hemsley) A. Gray memiliki efek hepatoprotektif pada tikus yang terinduksi karbon tetraklorida.

Kata kunci : *Tithonia diversifolia* (Hemsley) A. Gray, hepatoprotektif, infusa, karbontetraklorida, SGPT dan SGOT

### ABSTRACT

The purpose of this research was to investigate the hepatoprotective effect of long term infusion of insulin (*Tithonia diversifolia* (Hemsley) A. Gray leaf in *Spague Dawley* rats induced by carbon tetrachloride based on the decreased SGPT and SGOT activities. This research was purely experimental research with randomized complete direct sampling design. This research used male *Spague Dawley* rats, age about 2 to 3 months, and 150-250 gram weight. Thirty rats were divided randomly into six group. Group I was the control of 2,0 mL/kgBW carbon tetrachloride as a hepatotoxic and blood collected at 24<sup>th</sup> hour after administration of carbon tetrachloride. Group II was the negative control of 2,0 mL/kgBW olive oil and blood collected at 24<sup>th</sup> hour after administration of olive oil. Group III was given the highest dose of infusion of insulin (*Tithonia diversifolia* (Hemsley) for six days in a row and blood collected on 7<sup>th</sup> day. Group IV-VI were provided with infusion with three rangkings of dose 0.75; 1.5; and 3.0 g/kgBW for six days in a row and on the 7<sup>th</sup> day carbon tetrachloride was granted. The blood sampel from all grups was obtained by sinus orbitalis after 24<sup>th</sup> hours application for measured the serum transaminase (SGPT and SGOT) activities. The obtained data SGPT and SGOT activities was analyzed using *Saphiro-Wilk*, and since the data distribution of each group was normal, *one-way ANOVA* with 95% significancy level and continued with *Post Hoc* test. Based on the research, it can be concluded that infusion of insulin (*Tithonia diversifolia* (Hemsley) A. Gray leaf has a hepatoprotective effect upon carbon tetrachloride-induced hepatic damage in rats.

Keyword :*Tithonia diversifolia* (Hemsley A. Gray, hepatoprotective, infusion, carbon tetrachloride, SGPT and SGOT