

**EFEK HEPATOPROTEKTIF EKSTRAK ETANOL 30% DAUN JARONG  
(*Stachytarpheta indica* (L.) Vahl.) TERHADAP KADAR ALANIN  
AMINOTRANSFERASE DAN ASPARTAT AMINOTRANSFERASE PADA  
TIKUS JANTAN GALUR WISTAR TERINDUKSI KARBON  
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**INTISARI**

Penelitian ini bertujuan untuk mengetahui efek hepatoprotektif ekstrak etanol 30% daun jarong (*Stachytarpheta indica* (L.) Vahl.) terhadap kadar ALT dan AST pada tikus jantan galur Wistar yang terinduksi karbon tetraklorida (CCl<sub>4</sub>), dosis efektif, dan kekerabatan dosis dengan efek hepatoprotektif yang dihasilkan.

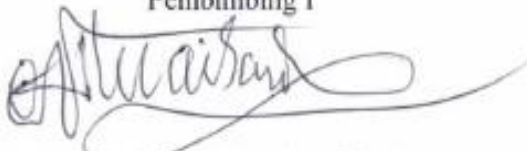
Jenis penelitian adalah eksperimental murni dengan rancangan acak lengkap pola searah. Digunakan 30 tikus jantan berumur 2-3 bulan dengan berat badan ± 160-250 gram, dibagi acak dalam 6 kelompok. Kelompok I diberi *olive oil* dosis 2 mL/kgBB. Kelompok II diberi larutan CCl<sub>4</sub> dalam minyak zaitun (1:1) dosis 2 mL/kgBB. Kelompok III diberi ekstrak etanol 30% daun *S. indica* dosis 400 mg/kgBB. Kelompok IV, V, dan VI diberi ekstrak etanol 30% daun *S. indica* dengan dosis 100; 200; dan 400 mg/kgBB. Pengambilan darah pada sinus orbitalis mata untuk penetapan kadar ALT dan AST pada jam ke-24 setelah pemberian CCl<sub>4</sub>. Data kadar ALT dan AST dianalisis menggunakan *one way ANOVA*, taraf kepercayaan 95% dan dilanjutkan post hoc *Tukey* atau *Games Howell*.

Hasil menunjukkan bahwa ekstrak etanol 30% daun *S. indica* memiliki efek hepatoprotektif, dosis 200 dan 400 mg/kgBB menurunkan kadar ALT-AST. Persen hepatoprotektif dari dosis terendah ke tertinggi sebesar 40,43%, 75,31%, dan 97,38%. Dosis efektif adalah dosis 400 mg/kgBB serta terdapat kekerabatan antara dosis dan efek hepatoprotektif yang dihasilkan.

**Kata kunci : efek hepatoprotektif, *Stachytarpheta indica* (L.) Vahl., ekstrak etanol 30%, ALT, AST**

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Pembimbing I



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### ABSTRACT

*The aim of study research were to prove the hepatoprotective effect of 30% ethanol extract of jarong leaves (*Stachytarpheta indica* Vahl.) to ALT and AST concentration, found the effective dose, and the correlation between the increase dose of *S. indica* 30% ethanol extract and ALT-AST concentration in male Wistar rats induced by carbon tetrachloride ( $\text{CCl}_4$ ).*

*The research was purely experimental research with randomized complete direct sampling design. This research used 30 male, aged 2-3 months and 160-250 grams weight Wistar rats and divided randomized into six groups. Group I was given olive oil at a dose of 2 mL/kgBW intraperitoneally. Group II was given  $\text{CCl}_4$  dissolved in olive oil (1:1) at a dose of 2 mL/kgBW intraperitoneally. Blood were taken at 24<sup>th</sup> hour for group I and II. Group III was given 30% ethanol extract *S. indica* at dose 400 mg/kgBW orally for six hours. Group IV; V; and VI were given 30% ethanol extract *S. indica* with doses level 100; 200; and 400 mg/kgBW orally six hours before  $\text{CCl}_4$  administration intraperitoneally. Blood samples from all group were taken through the eyes orbital sinus for measuring the ALT and AST serum concentration at 24<sup>th</sup> hour after administration of  $\text{CCl}_4$ . The data were analyzed by one way ANOVA with 95% significancy level and continued with Tukey or Games Howellpost hoc.*

*The results showed that 200 and 400 mg/kgBW doses of 30% ethanol extract of *S. indica* leaves had a hepatoprotective effect by lowering ALT and AST concentration. Hepatoprotective percents for ALT of 200 and 400 mg/kgBW dose were 75,31% and 97,38% and for AST were 83,77% dan 96,17%. The effective dose of 30% ethanol extract of *S. Indica* leaves was 400 mg/kgBW and there was a correlation between the increase dose of *S. indica* 30% ethanol extract and ALT-AST concentration reduction.*

**Keywords :** *hepatoprotective effect, *Stachytarpheta indica* Vahl., 30% ethanol extract, ALT, AST*