

# Evaluation of the Anticonvulsant Activity of Terpinen-4-ol

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Terpinen-4-ol is a monoterpenoid alcohol and component of the essential oils of several aromatic plants. Similarly to terpinen-4-ol, other monoterpenoid alcohols have shown anticonvulsant activity in convulsion animal models. The present study aimed to investigate the anticonvulsant activity of terpinen-4-ol. Treatment of mice with terpinen-4-ol (200 mg/kg) caused a significant decrease in the spontaneous motor activity at 30, 60 and 120 min after administration. Terpinen-4-ol (100 and 200 mg/kg) produced a significant dose-dependent increase in the duration of sleeping in mice. Pretreatment of mice with terpinen-4-ol at doses of 100, 200 and 300 mg/kg significantly increased the latency of pentylenetetrazole-induced convulsions. Terpinen-4-ol (200 and 300 mg/kg) also inhibited the induced seizures of picrotoxin. In another model, maximal electroshock seizure, terpinen-4-ol decreased the tonic hind convulsions percentage at the dose of 300 mg/kg. From the overall results we can conclude that terpinen-4-ol showed a depressant effect on the central nervous system and significant anticonvulsant activity.

*Key words:* Anticonvulsant Activity, Terpinen-4-ol, Essential Oils