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# Chemical Constituents, Antimicrobial, Analgesic, Antipyretic, and Anti-Inflammatory Activities of *Euphorbia peplus* L.

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## Abstract:

Fifteen compounds were isolated from *Euphorbia peplus* L.. Their structures were established by physical, chemical, and spectral data (UV, IR, MS, and 1D NMR), as well as comparison with authentic samples. The preliminary phytochemical screening of the alcoholic extract was done. GC-MS study of the fatty acid methyl esters of the n-hexane fraction was carried out. The antimicrobial, pharmacological, and cytotoxic activities of the different extracts were evaluated. The anti-inflammatory activity was evaluated by using yeast-induced paw edema method at doses of 200 and 400 mg/kg of the extracts. The MeOH and EtOAc extracts give potent anti-inflammatory activity compared with indomethacin. All the extracts exhibited significant analgesic activity in the acetic acid-induced writhing method at dose 400 mg/kg. The tested extracts showed antipyretic activity at doses 200 and 400 mg/kg for each extract. They control the hyperthermia for 4 hr without decrease in activity.

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