

Phytochemical Profiling and Biological Activities of Different Parts of *Mimosa Pudica*

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Abstract: *Mimosa pudica*, a well-known sensitive plant, has been the subject of extensive phytochemical and pharmacological investigations. This plant boasts a diverse array of chemical constituents, with a prominent presence of alkaloids, flavonoids, tannins, and saponins. The most notable alkaloid in *Mimosa pudica* is mimosine, recognized for its anti-proliferative and anti-inflammatory properties. Biologically, *Mimosa pudica* has displayed remarkable activities in various studies. The plant's extracts have exhibited potent antioxidant and free-radical scavenging abilities due to the high flavonoid content. Furthermore, it possesses anti-microbial properties, particularly against bacteria and fungi. Its traditional use in folk medicine for wound healing, pain relief, and as an anti-diarrheal agent is corroborated by its pharmacological effects. Additionally, studies have highlighted the potential neuroprotective effects of *Mimosa pudica*, which may be attributed to its neuroactive compounds. The investigation into the chemical constituents and biological activities of this remarkable plant continues to reveal its therapeutic potential in modern medicine. A literature study was carried out to determine the effects of this plant.

Keywords: Antiulcer activity, Mimosine, Phytochemistry, *Mimosa pudica*, Antidepressant, lajjalu

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