

Free-radical scavenging activity and bioactive secondary metabolites from various extracts of *Glinus oppositifolius* (L.) Aug. Dc. (Molluginaceae) roots, stems and leaves

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This paper aimed to evaluate the in vitro antioxidant activity and to determine the presence of bioactive phytochemical constituents in ethanol, methanol and chloroform extracts from the roots, stems and leaves of *Glinus oppositifolius*. The extracts were examined for antioxidant property by free radical (2,2-diphenyl-1-picrylhydrazyl, DPPH) scavenging activity and assayed for the presence of bioactive phytochemical constituents, i.e., alkaloids, flavonoids, glycosides, saponins, sterols, tannins, and terpenes. The total phenolics and total flavonoid content were quantified by Folin-Ciocalceu and aluminum chloride method, respectively. The results showed that all the plant parts, i.e., roots, stems and leaves, exhibited free radical scavenging activity which can be attributed to the presence of phytochemical constituents of the various extracts. The root chloroformic extract had the highest DPPH inhibition activity which was 70% relative to gallic acid. This was followed by the root methanolic and ethanolic extracts exhibiting 37% and 28% DPPH inhibition activity, respectively. This study revealed that *G. oppositifolius* roots, stems and leaves demonstrate great potential for antioxidant activity which can be tapped as source of drugs, drug components, nutraceuticals, food supplements, and other materials or ingredients for health and wellness.

Biography

Juliana Janet R. Martin-Puzon finished her PhD in Biology (Plant Physiology) in the University of the Philippines (UP) Diliman, Quezon City. She is completing her postdoctoral research on natural products under the joint program between Bureau of Agricultural Research Department of Agriculture and UP Natural Sciences Research Institute. She is Assistant Professor at the UP Institute of Biology.

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