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Antioxidant and Cytotoxicity Activity, and Determination of Phenol Content of Ethanol-Water Extract of Horsewhip (*Stachitaperta jamaicensis* L.) Leaves

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ABSTRACT

Plant horsewhip is a wild plant that is often found on the edge of rice fields, gardens, and fields with flowers shaped like purple horsewhip. As a result of ethnopharmaceutical research by Asni Amin in 2012, horsewhip leaves were used by the Bugis tribe in Bulukumba district, South Sulawesi province to treat cancer. To know scientifically about its activity and chemical content, this research was carried out. The research aimed to prove the antioxidant activity, toxicity value, and phenol content of the ethanol-water extract of horsewhip leaves. Research method: research is quantitative experimental. The ethanol-water extract of horsewhip leaves was tested for its antioxidant properties against DPPH free radicals, the cytotoxicity test was carried out using the BSLT method against *Artemia salina* larvae, and the phenol content was analyzed calorimetrically using Folin Ciocaltheu reagent. The research results showed that the antioxidant activity of the extract was very strong with an IC_{50} value is 20,66 $\mu\text{g/ml}$, and its toxicity was strong with an LC_{50} value.is 148,94 $\mu\text{g/ml}$, and the phenol content was declared equivalent to gallic acid is 61,19 mgGAE/gram. Conclusion: ethanol-water extract from horsewhip leaves can be considered a raw material in traditional medicine to inhibit free radicals that trigger cancer cells.

Keywords: Horsewhip leaves, ethanol-water extract, antioxidant, cytotoxicity, phenol content