

Potential of Suruhan Plant (*Peperomia Pellucida* L. Kunth) as Antioxidant and Sunscreen

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Abstract

Sunlight not only has a positive impact, but also has a negative impact on the skin if exposed excessively. The herbaceous plant suruhan (*Peperomia pellucida* L. Kunth) contains phenolic compounds, especially flavonoids, which have antioxidant activity and have potential as a sunscreen due to the presence of chromophore groups that can absorb UV rays. This study aims to see the antioxidant activity of suruhan herb plant in the sample used and see its potential as a sunscreen by measuring the SPF value and seeing the physical stability of the extract formulated into a cream preparation. The herbaceous plant was extracted with 96% ethanol solvent. The thick extract obtained was tested for antioxidant activity using the DPPH method, the results obtained an IC_{50} of 66.82 ppm with a strong antioxidant activity category, then determined the SPF value of the preparation in-vitro using a UV-Vis spectrophotometer at a wavelength of 290-320 nm, the results obtained an SPF value of the extract which increased with increasing extract concentration. The highest SPF value was measured at a concentration of 0.5 mg/ml with an SPF value of 9.9930. Furthermore, the extract was made into cream preparations with concentrations of 0%, 1.4% and 2.8%. The results of the evaluation of the preparation obtained a cream with a semisolid consistency and met all test requirements. From the research that has been done, it is concluded that the herbaceous plant suruhan has potential as a sunscreen cream which also has strong antioxidant activity so that it can prevent skin damage due to excessive sun exposure.

Keywords

Antioxidant, SPF, Herba Suruhan, *Peperomia Pellucida*