ABSTRAK

PERBANDINGAN METODE EKSTRAKSI TERHADAP KADAR TOTAL FENOLIK, AKTIVITAS ANTIOKSIDAN, DAN NILAI *SUN PROTECTION FACTOR* EKSTRAK ETANOL DAUN SUNGKAI (*Peronema canescens* Jack)

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Latar Belakang: Paparan sinar matahari yang berlebihan dapat memicu kerusakan kulit akibat stres oksidatif yang disebabkan oleh radiasi UV. Bahan alami yang mengandung senyawa fenolik dan antioksidan sedang banyak diteliti sebagai alternatif dalam formulasi tabir surya. Daun sungkai (*Peronema canescens* Jack) diketahui memiliki senyawa fenolik yang bersifat antioksidan dan mampu menyerap sinar UV. Namun, metode ekstraksi yang digunakan dapat memengaruhi kandungan senyawa aktif tersebut.
Metode: Penelitian secara eksperimental dilakukan dengan ekstraksi etanol daun sungkai menggunakan tiga metode tersebut. Kadar total fenolik ditentukan menggunakan metode *Folin-Ciocalteu*, aktivitas antioksidan diukur dengan uji DPPH, dan nilai SPF diukur secara *in vitro* menggunakan metode spektrofotometri Mansur.
Hasil: Terdapat perbedaan kadar total fenolik (*p-value* = 0,020) dan aktivitas antioksidan (*p-value* < 0,001) ekstrak etanol daun sungkai yang diekstraksi dengan metode maserasi, UAE, dan HE. Namun, tidak terdapat perbedaan nilai SPF (*p-value* = 0,276) ekstrak etanol daun sungkai yang diekstraksi dengan metode maserasi, UAE, dan HE.
Simpulan: Metode ekstraksi memengaruhi kadar fenolik dan aktivitas antioksidan ekstrak etanol daun sungkai.

Kata Kunci: Metode Ekstraksi, Kadar Total Fenolik, Antioksidan, SPF, Daun Sungkai

ABSTRACT

COMPARISON OF EXTRACTION METHODS ON TOTAL PHENOLIC CONTENT, ANTIOXIDANT ACTIVITY, AND SUN PROTECTION FACTOR OF ETHANOL EXTRACT FROM SUNGKAI LEAVES (*Peronema canescens* Jack)

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Background: Excessive sun exposure can trigger skin damage due to UV radiation-induced oxidative stress. Natural ingredients containing phenolic compounds and antioxidants are being explored as alternatives for sunscreen formulations. *Peronema canescens* Jack (sungkai leaves) is known to contain phenolic compounds with antioxidant properties and the ability to absorb UV radiation. However, the extraction method used may affect the content of these active compounds.
Methods: An experimental study was conducted using ethanol extraction of sungkai leaves with the three different methods. Total phenolic content was determined using the Folin-Ciocalteu method, antioxidant activity was assessed by the DPPH assay, and SPF values were measured in vitro using the Mansur spectrophotometric method.
Results: Significant differences were observed in total phenolic content (p-value = 0.020) and antioxidant activity (p-value < 0.001) among extracts obtained by maceration, UAE, and HE methods. However, no significant difference was found in SPF values (p-value = 0.276) across the three extraction methods.
Conclusion: Extraction method affects the phenolic content and antioxidant activity of ethanol extract from sungkai leaves.

Keywords: Extraction Method, Total Phenolic Content, Antioxidant, SPF, Sungkai Leaves