

**PENENTUAN NILAI SPF (*Sun Protection Factor*) EKSTRAK ETANOL DAUN KEJI
BELING (*Strobilanthes crisper* L. Blume) DAN DAUN SAMBILOTO (*Andrographis
paniculata* (Burm.f.) Wall. ex Nees)
BESERTA KOMBINASINYA**

**Ulfiatul Hayah
NIM. 201904041**

ABSTRAK

Pendahuluan: Perlindungan kulit terhadap sinar *ultraviolet* sangat penting bagi kulit yang terus-menerus terpapar sinar matahari, karena dapat merusak kulit. Tabir surya adalah suatu bahan yang mampu melindungi kulit dari paparan sinar UV. Daun keji beling dan daun sambiloto mengandung beberapa senyawa aktif salah satunya flavonoid yang efektif sebagai antioksidan. Tujuan penelitian ini adalah untuk mengetahui nilai SPF ekstrak etanol daun keji beling dan daun sambiloto menggunakan metode spektrofotometri UV-Vis. **Metode:** Jenis penelitian ini adalah kuantitatif. Desain penelitian ini adalah deskriptif pre eksperimental dengan menggunakan sampel daun keji beling dan daun sambiloto. Metode ekstraksi maserasi menggunakan pelarut etanol 96%. Uji warna pada penelitian ini dengan pemberian reagen HCl pekat dan serbuk Mg untuk mendeteksi senyawa flavonoid yang ditunjukkan perubahan warna kuning. Uji penentuan nilai SPF menggunakan spektrofotometri UV-Vis dengan panjang gelombang 290-330 nm dengan interval 5 nm. Analisis data dilakukan dengan uji deskriptif. **Hasil:** Hasil skrining fitokimia uji flavonoid diperoleh hasil positif. Hasil nilai SPF ekstrak etanol daun keji beling konsentrasi 600 ppm 4,3785 proteksi sedang, konsentrasi 900 ppm 6,4255 proteksi ekstra, konsentrasi 1000 ppm 7,0910 proteksi ekstra. Hasil nilai SPF ekstrak etanol daun sambiloto konsentrasi 150 ppm 3,8722 proteksi minimal, konsentrasi 200 ppm 6,0153 proteksi ekstra, konsentrasi 400 ppm 7,0012. Hasil nilai SPF kombinasi ekstrak etanol daun keji beling dan daun sambiloto konsentrasi 600 ppm 6,8392 proteksi ekstra. **Kesimpulan:** Kesimpulan yang diperoleh nilai SPF daun keji beling lebih tinggi dengan nilai 7,0190 dibanding daun sambiloto 7,0012 serta kombinasi daun keji beling dan daun sambiloto 6,8392.

Kata Kunci : Daun Keji Beling, Daun Sambiloto, flavonoid, Spektrofotometri Uv-Vis, Nilai SPF

**DETERMINATION OF THE SPF (Sun Protection Factor) ETHANOL EXTRACT OF KEJI
BELING LEAF (*Strobilanthes crispa* L. Blume) AND SAMBILOTO LEAF (*Andrographis
paniculate* (Burm.f.) Wall. ex Nees)
WITH ITS COMBINATIONS**

ABSTRACT

Introduction: Skin protection against ultraviolet rays is very important for skin that is constantly exposed to sunlight, because it can damage the skin.. Sunscreen is a material that can protect the skin from exposure to UV rays. Keji shard leaves and Sambiloto leaves contain several active compounds, one of which is flavonoids, which are effective as antioxidants. The purpose of this study was to determine the SPF value of the ethanol extract of Keji Beling leaves and Sambiloto leaves using the UV-Vis spectrophotometry method. **Method:** This type of research is quantitative. The research design was descriptive pre-experimental using samples of bitter shard leaves and bitter leaves. The maceration extraction method uses 96% ethanol solvent. The color test in this study was by administering concentrated HCl reagent and Mg powder to detect flavonoid compounds which showed a yellow color change. Test for determining the value of SPF using UV-Vis spectrophotometry with a wavelength of 290-330 nm with an interval of 5 nm. Data analysis was performed with a descriptive test. **Result:** The results of the phytochemical screening test for flavonoids obtained positive results. The results of the SPF value of the ethanol extract of keji shard leaves concentration of 600 ppm 4.3785 medium protection, concentration of 900 ppm 6.4255 extra protection, concentration of 1000 ppm 7.0910 extra protection. The results of the SPF value of the ethanol extract of Sambiloto leaves at a concentration of 150 ppm 3.8722 minimal protection, a concentration of 200 ppm 6.0153 extra protection, a concentration of 400 ppm 7.0012. The results of the SPF value of the combination of ethanol extract of keji beling leaves and bitter leaves with a concentration of 600 ppm 6.8392 extra protection. **Conclusion:** The conclusion obtained is that the SPF value of bitter shard leaves is higher with a value of 7.0190 compared to Sambiloto leaves 7.0012 and the combination of Keji shard leaves and Sambiloto leaves 6.8392.

Key words : Keji Beling Leaf, Sambiloto Leaf, Flavonoids, Uv-Vis Spectrophotometry, SPF Value