

PENGARUH METANOL DAN ETIL ASETAT SEBAGAI PELARUT EKSTRAKSI DAUN KUPU-KUPU (*Bauhinia purpurea* L.) TERHADAP AKTIVITAS PENANGKALAN RADIASI UV

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INTISARI

Latar Belakang: Daun kupu-kupu (*Bauhinia purpurea* L.) merupakan salah satu tanaman yang berpotensi sebagai tabir surya karena memiliki senyawa flavonoid dan fenol yang dapat melindungi kulit dari kerusakan akibat paparan sinar UV yang berlebihan. Untuk mendapatkan senyawa flavonoid dan fenol dapat dilakukan menggunakan metode ekstraksi maserasi. Hasil ekstraksi dapat dipengaruhi oleh beberapa faktor salah satunya yaitu perbedaan jenis pelarut ekstraksi. Ekstraksi menggunakan pelarut metanol dan etil asetat dapat membedakan aktivitas tabir surya.

Tujuan Penelitian: Untuk mengetahui pengaruh perbedaan pelarut ekstraksi metanol dan etil asetat daun *Bauhinia purpurea* terhadap aktivitas penangkalan radiasi UV.

Metode Penelitian: Daun kupu-kupu diekstraksi dengan metode maserasi menggunakan pelarut metanol dan etil asetat. Hasil ekstraksi digunakan untuk skrining fitokimia, uji penentuan nilai SPF, %Te dan %Tp dengan spektrofotometer Uv-Vis. Hasil analisis data diolah secara statistik.

Hasil Penelitian: Hasil skrining fitokimia ekstrak metanol yaitu positif mengandung senyawa flavonoid, fenolik, tanin, dan saponin, sedangkan ekstrak etil asetat positif mengandung fenolik dan tanin. Nilai SPF ekstrak metanol dan etil asetat berturut-turut 21.26237; 24.26686. Nilai %Te ekstrak metanol dan etil asetat berturut-turut 0.01438%; 0.00469%. Nilai %Tp ekstrak metanol dan etil asetat berturut-turut 0.01075%; 0.00139%.

Kesimpulan: Pelarut metanol dan etil asetat berpengaruh signifikan terhadap nilai SPF, %Te, %Tp ekstrak daun kupu-kupu. Nilai SPF, %Te dan %Tp terbaik yaitu pada pelarut etil asetat

Kata Kunci: Daun kupu-kupu, SPF, %Te, %Tp, Metanol, Etil Asetat.

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THE EFFECT OF METHANOL AND ETHYL ACETATE AS THE EXTRACTION SOLVENTS ON ANTI-RADIATION ACTIVITY OF *Bauhinia purpurea* LEAVES

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ABSTRACT

Background: *Bauhinia purpurea* leaves are one of the plants that have potential as sunscreens because they have flavonoid and phenol compounds that can protect the skin from damage due to excessive UV exposure. To obtain flavonoid and phenol compounds can be done using the maceration extraction method. Extraction results can be influenced by several factors, one of which is the different types of extraction solvents. Extraction using methanol and ethyl acetate solvents can differentiate sunscreen activity.

Objective: To determine the effect of the difference between methanol and ethyl acetate extraction solvents of *Bauhinia purpurea* leaves on the activity of preventing UV radiation

Method: *Bauhinia purpurea* leaves were extracted using the maceration method using methanol and ethyl acetate as solvents. The extraction results are used for phytochemical screening, testing to determine SPF, %Te and %Tp values using a UV-Vis spectrophotometer. The results of data analysis are processed statistically.

Results: Phytochemical screening of the methanol extract showed positive results for the presence of flavonoids, phenolics, tannins, and saponins, while the ethyl acetate extract was positive for the presence of phenolics and tannins. The SPF of methanol extract was 21.26237 and ethyl acetate extract was 24.26686. The %Te of methanol was 0.01438% and ethyl acetate extract was 0.00469%. The %Tp values for methanol was 0.01075% and ethyl acetate was 0.00139%.

Conclusion: Methanol and ethyl acetate solvents significantly influenced the SPF, %Te, and %Tp values of *Bauhinia purpurea* leaf extracts. The best SPF, %Te, and %Tp values were found in the extract using ethyl acetate solvent.

Keywords: *Bauhinia purpurea* L., Ethyl Acetate, Methanol, SPF, %Te, %Tp

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