

ABSTRAK

Pendahuluan: Bintangur memiliki beragam manfaat terutama dalam pengobatan sehingga tanaman ini dapat diolah menjadi ekstrak. Kriteria yang harus dipenuhi suatu obat herbal adalah aman, efektif dan berkhasiat sehingga perlu dilakukan standardisasi untuk penetapan mutu bahan baku sesuai standar yang dipersyaratkan. Flavonoid merupakan substansi bioaktif yang terkandung pada daun bintangur yang berpengaruh baik terhadap kadar kolesterol total darah sehingga dapat dimanfaatkan dalam terapi dislipidemia. **Tujuan:** Penelitian ini bertujuan untuk menjamin produk akhir dari ekstrak bintangur memiliki mutu yang baik sesuai standar dan terjaga keamanannya melalui standardisasi serta menganalisis kadar flavonoid total untuk mengetahui potensi aktivitas antioksidan terkait dengan efek farmakologis yang dihasilkan sebagai terapi dislipidemia. **Metode:** Standardisasi dilakukan melalui uji parameter spesifik meliputi identitas ekstrak, organoleptis, uji mikroskop dan makroskop, kadar sari larut air dan etanol serta parameter non spesifik meliputi susut pengeringan, bobot jenis, kadar air, kadar abu total, cemaran logam berat, cemaran mikroba ALT. Penetapan kadar flavonoid dilakukan menggunakan spektrofotometri UV-Vis dengan standar pembanding kuarsetin. **Hasil:** Parameter spesifik ekstrak etanol daun bintangur memiliki bentuk kering dan keras, warna hijau gelap dan rasa pahit, fragmen pengenalnya stomata tipe anisositik dan kristal Ca oksalat tunggal berbentuk prisma dan amorf, memiliki daun berbentuk oval dengan ujung lancip, kadar sari larut air dan etanol sebesar 10,99% dan 79,74%. Parameter non spesifik memiliki susut pengeringan 13,07%, bobot jenis 0,7836 g/mL, kadar air 0,12%, kadar abu total $1,24 \pm 0,43$, cemaran logam berat Pb ($2,3144 \text{ mg/kg}$) dan Cd ($0,0987 \text{ mg/kg}$) serta cemaran mikroba (ALT) sebesar $9,5 \times 10^2 \text{ CFU/gram}$. Hasil penetapan kadar flavonoid total pada ekstrak etanol daun bintangur sebesar $8,3305 \pm 0.0589 \text{ mgQE/g}$. **Kesimpulan:** Hasil pengujian parameter spesifik dan nonspesifik sesuai dengan literatur yang ada dan memenuhi persyaratan yang ditetapkan serta mengandung flavonoid dengan kadar tertentu.

Kata kunci: Bintangur, Standardisasi, flavonoid, spektrofotometri UV-Vis

ABSTRACT

Introduction: Bintangur has various benefits, especially in medicine so that this plant can be processed into extracts. The criteria that must be met for an herbal medicine are safe, effective and efficacious so that it is necessary to standardize it to determine the quality of raw materials according to the required standards. Flavonoids are bioactive substances contained in bintangur leaves which have a good effect on total blood cholesterol levels so that they can be used in dyslipidemia therapy. **Purpose:** This study aims to ensure the final product of bintangur extract has good quality according to standards and maintained its safety through standardization and analyzing total flavonoid levels to determine the potential antioxidant activity associated with pharmacological effects produced as a dyslipidemia therapy. **Methods:** Standardization is carried out through specific parameter tests including extract identity, organoleptic, microscopy and macroscopic tests, water and ethanol soluble extracts and non-specific parameters including drying shrinkage, specific gravity, water content, total ash content, heavy metal contamination, ALT microbial contamination . Flavonoid levels were determined using UV-Vis spectrophotometry with quercetin as a reference standard. **Results:** Specific parameters of the ethanol extract of bintangur leaves are dry and hard shape, dark green color and bitter taste, the identifying fragments are anisocytic type stomata and single Ca oxalate crystals are prismatic and amorphous, have oval-shaped leaves with sharp ends, water and ethanol soluble extracts of 10.99% and 79.74%. Non-specific parameters have drying shrinkage of 13.07%, specific gravity of 0.7836 g/mL, moisture content of 0.12%, total ash content of 1.24 ± 0.43 , heavy metal contamination Pb (2.3144 mg/kg) and Cd (0.0987 mg/kg) and microbial contamination (ALT) of 9.5×10^2 CFU/gram. The results of determining total flavonoid levels in the ethanol extract of bintangur leaves were $8,3305 \pm 0.0589$ mgQE/g. **Conclusion:** The results of testing the specific and non-specific parameters are in accordance with the existing literature and meet the established requirements and contain certain levels of flavonoids.

Keywords: Bintangur, Standardization, flavonoids, UV-Vis spectrophotometry