RINGKASAN

Kitolod (*Hippobroma longiflora* (L.) G. Don) merupakan tumbuhan liar yang biasa digunakan sebagai obat tradisional di Indonesia. Potensi kitolod sebagai tumbuhan obat didasarkan kandungan metabolit sekunder seperti alkaloid, polifenol, tanin, saponin, dan steroid yang memiliki banyak kegunaan terutama pada bidang kesehatan. Kandungan metabolit sekunder didapatkan melalui proses ekstraksi dari organ tumbuhan seperti akar, batang, dan daun. Selain organ tumbuhan, penentuan pelarut pada proses ekstraksi merupakan salah satu faktor yang sangat berpengaruh pada hasil uji kandungan metabolit sekunder. Penelitian ini bertujuan untuk menentukan interaksi jenis pelarut dan organ tumbuhan terhadap kandungan metabolit sekunder ekstrak kitolod. Pengambilan sampel dilakukan dengan metode *purposive sampling* di wilayah Purwokerto dan eksperimental laboratorium.

Pada penelitian ini dilakukan optimasi jenis pelarut yaitu akuades, etanol 50%, dan etanol 96% serta bagian organ tumbuhan yaitu akar, batang, dan daun terhadap profil metabolit sekunder kitolod. Variabel bebas penelitian ini adalah jenis pelarut dan organ tumbuhan sedangkan variabel terikat adalah konsentrasi metabolit sekunder kitolod. Parameter pengamatan terdiri dari morfologi (akar, batang, daun), uji kualitatif (alkaloid dan polifenol) serta uji kuantitatif (total alkaloid dan polifenol). Data kualitatif dianalisis secara deskriptif sedangkan data kuantitatif dianalisis dengan menggunakan anova dengan taraf kesalahan 5% dan taraf kesalahan 1% dan dilanjutkan dengan DMRT 5%.

Hasil penelitian menunjukkan bahwa hasil uji kualitatif senyawa alkaloid ekstrak kitolod positif tinggi pada organ akar dan daun sedangkan senyawa polifenol positif tinggi pada organ batang dan daun. Jenis pelarut dan variasi organ tumbuhan yang digunakan memiliki pengaruh signifikan terhadap konsentrasi alkaloid dan polifenol. Konsentrasi alkaloid tertinggi adalah organ daun dengan pelarut etanol 96% sebesar 140,76±74,47 mg QNE/L sedangkan polifenol tertinggi dari organ batang jenis pelarut etanol 96% sebesar 82,42±72,85 mg GAE/L.

Kata kunci: kitolod, maserasi, metabolit sekunder, polaritas pelarut, Purwokerto

SUMMARY

Kitolod (*Hippobroma longiflora* (L.) G. Don) is a wild plant commonly used as a traditional medicine in Indonesia. The potential of kitolod as a medicinal plant is based on the content of secondary metabolites which have many uses, especially in the health sector. The content of secondary metabolites is obtained through the extraction process from plant organs such as roots, stems, and leaves. In addition to plant organs, the determination of solvents in the extraction process is one of the factors that greatly affects the test results of secondary metabolite content. This study aims to determine the interaction of solvent type and plant organ on the secondary metabolite content of kitolod extract. Sampling was done by purposive sampling method in Purwokerto area and laboratory experiment.

In this study, optimization of solvent types, namely distilled water, 50% ethanol, and 96% ethanol and plant organ parts, namely roots, stems, and leaves, was carried out on the secondary metabolite profile of kitolod. The independent variables of this study are the types of solvents and plant organs while the dependent variable is the secondary metabolite content of kitolod. Observation parameters consisted of morphology (roots, stems, leaves), qualitative tests (alkaloids and polyphenols) and quantitative tests (total alkaloids and polyphenols). Qualitative data were analyzed descriptively while quantitative data were analyzed using anova with an error rate of 5% and an error rate of 1% and if there was an effect then continued with DMRT 5%.

The results showed that the qualitative test results of alkaloid compounds of kitolod extract were high positive in root and leaf organs while polyphenol compounds were high positive in stem and leaf organs. The type of solvent and the variety of plant organs used have a significant influence on the content of alkaloids and polyphenols. The highest alkaloid concentration was the leaf organ with 96% ethanol solvent at 140.76 ± 74.47 mg QNE/L while the highest polyphenols were from the stem organ of 96% ethanol solvent type at 82.42 ± 72.85 mg GAE/L.

Keywords: kitolod, maceration, secondary metabolites, solvent polarity, Purwokerto