

STANDARDISASI EKSTRAK ETANOL DAUN KANGKUNG DARAT (*Ipomoea reptans* Poir.) HASIL BUDIDAYA PETANI GANTIWARNO, KLATEN BERDASARKAN PARAMETER SPESIFIK DAN NON SPESIFIK

INTISARI

Standardisasi adalah serangkaian parameter, prosedur, dan cara pengukuran yang hasilnya memenuhi syarat standar. Penelitian ini bertujuan untuk mengetahui proses ekstraksi guna mendapatkan ekstrak daun kangkung darat yang memenuhi persyaratan terstandar dan mengetahui nilai parameter spesifik dan non spesifik ekstrak daun kangkung darat serta mengetahui apakah ekstrak daun kangkung darat sudah memenuhi standar yang ditetapkan. Ekstrak daun kangkung darat (*Ipomoea reptans* Poir.) yang diperoleh dari wilayah Gantiwarno, Klaten dimaserasi menggunakan etanol 96%, dan ekstrak diuji berdasarkan parameter spesifik dan non spesifik. Hasil penelitian menunjukkan ekstrak kental daun kangkung darat (*Ipomoea reptans* Poir) memiliki nilai parameter spesifik dan non spesifik diantaranya: rendemen 9,36% b/b, ekstrak berbentuk kental, berwarna coklat kehijauan, berbau khas kangkung, rasa asam pahit, kadar senyawa beta karoten $3,2 \pm 1,6\%$ b/b, bobot jenis $0,82 \pm 0,00$, kadar air $11,05 \pm 0,13\%$ b/b, kadar abu total $7,10 \pm 0,35\%$ b/b, kadar abu tidak larut asam $1,32 \pm 0,19\%$ b/b, cemaran logam berat Pb dan Cd <LoD, uji angka cemaran mikroba tidak terdeteksi, uji sisa pelarut etanol negatif. Berdasarkan semua uji parameter spesifik maupun non spesifik menunjukkan ekstrak daun kangkung darat memenuhi standar yang ditetapkan oleh Farmakope Herbal Indonesia, Materia Medika Indonesia, SNI 01-7387-2009, dan SNI 7388-2009 kecuali uji kadar abu tidak larut asam.

Kata kunci: standardisasi, kangkung darat (*Ipomoea reptans* Poir.), parameter spesifik, parameter non spesifik

STANDARDIZATION OF ETHANOLIC EXTRACT OF CULTIVATED KANGKONG LEAVES (*Ipomoea reptans* Poir.) FROM GANTIWARNO KLATEN USING SPECIFIC AND NON SPECIFIC PARAMETERS

ABSTRACT

Standardization is a series of parameters, procedures, and how to measure the results meets standard requirements. The aims of this study were to determine the extraction process for producing extract of kangkong leaves which meets the standard requirements and to determine the values of specific and non-specific parameters of the extract of kangkong leaves. In addition, this study was also to determine whether the extract of kangkong leaves meet the standard that has been established. The kangkong (*Ipomoea reptans* Poir.) was harvested from Gantiwarno region of Klaten at 21-25 days. The extract was macerated using ethanol 96%, and the extract was evaluated based on specific and non-specific parameters. The results showed that extract of kangkong leaves has values of specific and non-specific parameters as follow: liquid and viscous greenish brown extract, distinctive odor of kangkong, had a bitter-sour taste, the randemen was 9.36% w/w, the level of beta-carotene compound was $3.2 \pm 1.6\%$ w/w, the specific weight was $0.82 \pm 4.60 \times 10^{-3}$, the moisture content was $11.05 \pm 0.13\%$ w/w, the total ash content was $7.10 \pm 0.35\%$ w/w, acid insoluble ash content was $1.32 \pm 0.19\%$ w/w, the heavy metal contamination of Pb and Cd were less than Limit of Detection, number of microbial contamination was less than 10^5 colony/g in the extract. Also, residual ethanol solvent test had a negative result. From all of the evaluation, using specific and non-specific parameters showed that the ethanolic extract of kangkong leaves has met the standards that has established by the Indonesian Herbal Pharmacopoeia, Materia Medika Indonesia, SNI 01-7387-2009, and SNI 7388-2009, except for acid insoluble ash levels.

Keywords: Standardization, *Ipomoea reptans* Poir., specific parameters, non-specific parameters.