

ABSTRACT

STANDARDIZATION OF JAVANESE (*Tamarindus indica L*) LEAF ETHANOL EXTRACT USING THE REFLUX METHOD

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Standardization of the ethanol extract of tamarind leaves (*Tamarindus indica L*) was carried out aiming to maintain consistency of quality, safety and active compounds contained in the extract. Tamarind leaves were extracted using the reflux method with ethanol 96% p.a followed by evaporation and coagulation of the extract. The parameters specified in the standardization of extracts include specific parameters and non-specific parameters, specific parameters include simplicia identity, simplicia organoleptic, and phytochemical screening, while non-specific parameters include determination of water content, ash content, acid insoluble ash content, and total flavonoids. The specific parameter test results were in the form of a brownish green viscous extract with a characteristic aromatic odor and a slightly sour taste as well as the results of the phytochemical screening which showed that tamarind leaves positively contained flavonoids, alkaloids, tannins and saponins. Non-specific parameter test results in the form of determination of water content obtained at $0.51\% \pm 0.15$, determination of total ash content obtained at $0.18\% \pm 0.02$, determination of acid insoluble ash content obtained at $0.45\% \pm 0.05$, and the determination of total flavonoid content was $4.94\% \text{ w/b} \pm 0.6369$. The result of standardization of tamarind leaves (*Tamarindus indica L*) meet the requirements stated in the Indonesian Herbal Pharmacope

Keywords: *Specific and non specific parameters, standardization, tamarind leaves (Tamarindus indica L)*

ABSTRAK

STANDARISASI EKSTRAK ETANOL DAUN ASAM JAWA (*Tamarindus indica L*) MENGGUNAKAN METODE REFLUKS

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Standarisasi ekstrak etanol Daun asam jawa (*Tamarindus indica L*) dilakukan bertujuan untuk mempertahankan konsistensi mutu, keamanan, dan senyawa aktif yang terkandung dalam ekstrak. Daun asam jawa di ekstrak menggunakan metode refluks dengan pelarut etanol 96% *p.a* dilanjutkan dengan penguapan dan pengentalan ekstrak. Parameter yang ditetapkan dalam standarisasi ekstrak antara lain yaitu parameter spesifik dan parameter non-spesifik, parameter spesifik meliputi identitas simplisia, organoleptis simplisia, dan skrining fitokimia, sedangkan parameter non spesifik meliputi penetapan kadar air, kadar abu, kadar abu tidak larut asam, dan kadar flavonoid total. Hasil uji parameter spesifik berupa ekstrak kental berwarna hijau kecoklatan dengan bau khas aromatik dan rasa yang sedikit asam serta hasil skrining fitokimia yang menunjukkan bahwa daun asam jawa positif mengandung flavonoid, alkaloid, tanin, dan saponin. Hasil uji parameter non spesifik berupa penetapan kadar air yang diperoleh sebesar $0,51\% \pm 0,15$, penetapan kadar abu total diperoleh sebesar $0,18\% \pm 0,02$, penetapan kadar abu tidak larut asam diperoleh sebesar $0,45\% \pm 0,05$, dan penetapan kadar flavonoid total diperoleh sebesar $4,94\% \text{ b/b} \pm 0,6369$. Hasil dari standarisasi daun asam jawa (*Tamarindus indica L*) memenuhi persyaratan yang tertera dalam Farmakope Herbal Indonesia.

Kata kunci : Daun asam jawa (*Tamarindus Indica L*), parameter spesifik dan non spesifik, standarisasi