

INTISARI

Sacha inchi (*Plukenetia volubilis*) dan pegagan (*Centella asiatica*) dikenal kaya akan antioksidan alami. Penelitian ini mengombinasikan kedua bahan tersebut dalam sediaan body scrub untuk mengkaji kekuatan aktivitas antioksidannya dan mengevaluasi mutu fisik sediaan. Evaluasi dilakukan dengan variasi konsentrasi asam stearat dan trietanolamin (TEA) sebagai emulgator. Uji aktivitas antiradikal menggunakan metode ABTS (2,2'-azino-bis-3-ethylbenzothiazoline-6-sulfonic acid), sedangkan mutu fisik sediaan diuji melalui beberapa uji, meliputi organoleptik, tipe emulsi, pH, viskositas, homogenitas, daya sebar, daya lekat, serta uji stabilitas dengan *cycling test*. Data dianalisis menggunakan Microsoft Excel dan SPSS.

Hasil menunjukkan kombinasi konsentrasi minyak biji sachu inchi 6% dan ekstrak pegagan 4% dengan menghasilkan aktivitas antiradikal paling baik, ditunjukkan oleh nilai IC_{50} sebesar 118,54 $\mu\text{g/mL}$. Formula sediaan *body scrub* F1 dengan komposisi asam stearat 14% dan TEA 1% merupakan formula terpilih yang memenuhi seluruh persyaratan parameter uji mutu fisik baik sebelum maupun sesudah *cycling test*, kecuali uji daya sebar. Formula terpilih memiliki nilai IC_{50} sebesar 148,11 $\mu\text{g/mL}$ dan mengalami penurunan menjadi 159,81 $\mu\text{g/mL}$ setelah *cycling test*.

Kata Kunci: *Plukenetia volubilis*, *Centella asiatica*, antioksidan, *body scrub*.

ABSTRACT

Sacha inchi (*Plukenetia volubilis*) and gotu kola (*Centella asiatica*) are known to be rich in natural antioxidants. This study combined both ingredients in a body scrub formulation to assess their antiradical activity and evaluate the physical quality of the preparation. The evaluation was conducted using varying concentrations of stearic acid and triethanolamine (TEA) as emulsifiers. Antioxidant activity was tested using the ABTS (2,2'-azino-bis-3-ethylbenzothiazoline-6-sulfonic acid) method, while the physical quality of the formulation was evaluated through several tests, including organoleptic properties, emulsion type, pH, viscosity, homogeneity, spreadability, adhesion, and stability using the cycling test. Data were analyzed using Microsoft Excel and SPSS.

The results showed that the combination of 6% sachal inchi seed oil and 4% gotu kola extract yielded the highest antiradical activity, as indicated by an IC_{50} value of 118.54 $\mu\text{g/mL}$. The F1 body scrub formulation, composed of 14% stearic acid and 1% TEA, was identified as the optimal formula, meeting all physical quality parameters before and after the cycling test, except for the spreadability test. The selected formula had an IC_{50} value of 148.11 $\mu\text{g/mL}$, which slightly decreased to 159.81 $\mu\text{g/mL}$ after the cycling test.

Keywords: *Plukenetia volubilis*, *Centella asiatica*, antioxidant, body scrub.