

**AKTIVITAS ANTIINFLAMASI INFUSA
Clitoria ternatea L. DALAM SEDIAAN SERUM WAJAH
MELALUI PENGHAMBATAN DENATURASI PROTEIN**

Vincensia Yurin Prilia Kristanti

21/477263/BI/10751

Dosen Pembimbing: Prof. Dr. Rarastoeti Pratiwi, M.Sc., Ph.D.

INTISARI

Perawatan kulit dengan produk berbahan dasar alami mulai banyak dicari oleh masyarakat untuk mengatasi berbagai masalah inflamasi pada kulit. Telang (*Clitoria ternatea* L.) termasuk tanaman herba yang mudah tumbuh di Indonesia, yang mengandung berbagai senyawa bioaktif, diantaranya sebagai antiinflamasi. Penelitian ini dilakukan dengan tujuan untuk menganalisis aktivitas antiinflamasi infusa *Clitoria ternatea* untuk sediaan serum wajah secara *in vitro*. Penelitian ini dilakukan dengan membuat infusa bunga telang kering yang diformulasikan dalam formula serum pada tiga variasi konsentrasi, yaitu 5, 10, dan 15% (w/v). Analisis aktivitas antiinflamasi dalam menghambat denaturasi protein melalui perhitungan persen inhibisi. Perbandingan efektivitas dilakukan antara infusa dengan kontrol positif. Metode yang digunakan adalah penghambatan denaturasi protein dengan pengukuran absorbansi menggunakan spektrofotometer UV-Vis. Formulasi sediaan serum wajah dilakukan dalam berbagai uji fisiko-kimia, yakni homogenitas, pH, daya sebar, daya lekat, uji organoleptik, dan uji hedonik. Data hasil persentase inhibisi yang diperoleh dianalisis menggunakan uji normalitas, uji homogenitas, uji *One-Way ANOVA*; serta dilanjutkan uji *Friedman* untuk data penilaian hedonik. Hasil penelitian menunjukkan bahwa serum wajah yang mengandung 15% infusa bunga telang memiliki aktivitas antiinflamasi terbaik, dengan rata-rata presentase inhibisi sebesar 79,59% dibandingkan yang lainnya, terlihat dari persentase inhibisi yang terus meningkat setiap penambahan konsentrasi. Hasil uji fisiko-kimia menunjukkan sediaan serum wajah telah memenuhi parameter mutu, kecuali daya sebar.

Kata kunci: antiinflamasi, bunga telang, denaturasi protein, *One-Way ANOVA*, serum wajah

ANTI-INFLAMMATORY ACTIVITY OF *Clitoria ternatea* L. INFUSION IN FACIAL SERUM PREPARATION THROUGH PROTEIN DENATURATION INHIBITION

Vincensia Yurin Prilia Kristanti

21/477263/BI/10751

Dosen Pembimbing: Prof. Dr. Rarastoeti Pratiwi, M.Sc., Ph.D.

ABSTRACT

Skin care products made from natural ingredients are increasingly sought after by the public to address various inflammatory skin issues. *Clitoria ternatea* L. is a herbaceous plant that grows easily in Indonesia and contains various bioactive compounds, including anti-inflammatory properties. This study was conducted to analyze the anti-inflammatory activity of *Clitoria ternatea* infusion for facial serum formulations in vitro. The study involved preparing dried butterfly pea flower infusion formulated into a serum at three concentration levels: 5, 10, and 15% (w/v). Anti-inflammatory activity was assessed by inhibiting protein denaturation through percentage inhibition calculations. The effectiveness was compared between the infusion extract and the positive control. The method used was protein denaturation inhibition measured by absorbance using a UV-Vis spectrophotometer. The formulation of the facial serum was subjected to various physicochemical tests, including homogeneity, pH, spreadability, adhesion, organoleptic testing, and hedonic testing. The percentage inhibition data obtained were analyzed using normality tests, homogeneity tests, One-Way ANOVA tests; followed by Friedman tests for hedonic assessment data. The results showed that facial serum containing 15% butterfly pea flower infusion exhibited the best anti-inflammatory activity, with an average inhibition percentage of 79,59% compared to others, as evidenced by the continuously increasing inhibition percentage with each increase in concentration. The physical-chemical test results indicated that the facial serum formulation met quality parameters, except for spreadability.

Keywords: anti-inflammatory, butterfly pea flower, protein denaturation, One-Way ANOVA, facial serum