

AKTIVITAS ANTIOKSIDAN INFUSA BUNGA TELANG (*Clitoria ternatea* L.) SEBAGAI SENYAWA AKTIF FORMULA *EYE CREAM*

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INTISARI

Bunga telang memiliki potensi sebagai senyawa antioksidan alami karena mengandung metabolit sekunder berupa antosianin. Antioksidan merupakan senyawa yang dapat menghambat laju oksidasi molekul lain dan menetralkan radikal bebas dengan mendonorkan atom hidrogen atau elektron sehingga radikal bebas menjadi stabil. Radikal bebas dapat menyerang sel dan jaringan dalam tubuh hingga merusak struktur dan fungsinya, lalu memunculkan permasalahan kesehatan, salah satunya permasalahan kulit sebagai organ perlindungan pertama suatu organisme. Senyawa antioksidan mampu mengatasi efek-efek permasalahan kulit akibat radikal bebas dan melindungi kulit dari ROS akibat stress oksidatif. Penelitian ini bertujuan untuk mengetahui aktivitas antioksidan formula *eye cream* dengan variasi konsentrasi infusa bunga telang, serta mengetahui sifat fisik formula *eye cream* dengan kandungan senyawa aktif infusa bunga telang. Metode penelitian ini yaitu DPPH dengan analisis IC_{50} melalui regresi linear sederhana dan analisis statistik melalui program *software* IBM SPSS. Hasil penelitian ini menunjukkan bahwa aktivitas antioksidan dengan nilai IC_{50} paling tinggi terdapat pada formula *eye cream* F3 dengan kandungan infusa bunga telang 15% yaitu sebesar $718,82 \pm 67,24$ ppm. Hasil uji sifat fisikokimiawi pada formula *eye cream* 15% yang meliputi organoleptik, homogenitas, pH, viskositas, daya sebar, serta daya lekat masih memenuhi kriteria formula *cream*. Kesimpulan dari penelitian ini yaitu aktivitas antioksidan formula *eye cream* tergolong lemah, tetapi memiliki sifat fisikokimiawi yang masih sesuai dengan kriteria sifat fisik formula *cream*.

Kata kunci: Antioksidan, Bunga Telang, DPPH, *Eye Cream*

ANTIOXIDANT ACTIVITY OF BUTTERFLY PEA FLOWER (*Clitoria ternatea* L.) INFUSION AS AN ACTIVE COMPOUND IN EYE CREAM FORMULA

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ABSTRACT

Butterfly pea flowers have the potential as natural antioxidant compounds because they contain secondary metabolites in the form of anthocyanins. Antioxidants are compounds that can inhibit the rate of oxidation of other molecules and neutralize free radicals by donating hydrogen atoms or electrons so that free radicals become stable. Free radicals can attack cells and tissues in the body to damage their structure and function, then cause health problems, one of which is skin problems as the first protective organ of an organism. Antioxidant compounds are able to overcome the effects of skin problems due to free radicals and protect the skin from ROS due to oxidative stress. This study aims to determine the antioxidant activity of eye cream formulati with variations in the concentration of butterfly pea flower infusion, as well as to determine the physical properties of eye cream formula with active compounds of butterfly pea flower infusion. The research method is DPPH with IC₅₀ analysis through simple linear regression and statistical analysis through the IBM SPSS software program. The results of this study indicate that the antioxidant activity with the highest IC₅₀ value is found in the F3 eye cream formula containing 15% butterfly pea flower infusion, which is 718.82 ± 67.24 ppm. The results of the physicochemical properties test on the 15% eye cream formula which include organoleptic, homogeneity, pH, viscosity, spreadability, and adhesiveness still meet the criteria for the cream formula. The conclusion of this study is that the antioxidant activity of the eye cream formula is relatively weak, but has physicochemical properties that are still in accordance with the criteria for the physical properties of the cream formula.

Keywords: Antioxidants, Butterfly Pea Flower, DPPH, Eye Cream