

MICPS2-027-P

## Serum Formulation of Basil Leaf Extract (*Ocimum basilicum* L.) as An Antioxidant

Mumtihanah Musyid, Iskandar Zulkarnain, Audia Triani Oliy<sup>1,\*</sup>, Khusnia

Laboratory of Pharmaceutical, Faculty of Pharmacy, Universitas Muslim Indonesia, Indonesia

\*Corresponding author: [audiatriani.olii@umi.ac.id](mailto:audiatriani.olii@umi.ac.id)

### ABSTRACT

The flavonoid content in basil leaves can be used as an antioxidant. Serum is a preparation that is formulated from high concentrations of active substances so that the effect is absorbed more quickly by the skin. The purpose of this study was to formulate basil leaf extract serum as an antioxidant using an experimental method. Evaluation test and antioxidant test using basil leaf extract concentrations of 0.06%, 0.30%, and 0.6%. Evaluation of serum preparations was carried out with parameters namely organoleptic test, homogeneity test, pH test, spreadability test, Viscosity test, stability test, and antioxidant test with the DPPH method. The results showed that after stability testing for 6 cycles the serum formula did not change color, homogeneous conditions, the average formula pH was F1 ( $4.659 \pm 0.007$ ), F2 ( $4.826 \pm 0.002$ ), F3 ( $4.981 \pm 0.001$ ), the viscosity of the preparation F1 ( $2356 \pm 40.412$  cps), F2 ( $2285 \pm 5$  cps), F3 ( $2176 \pm 1.572$  cps), the average spread of the preparation was 5.2-6.3 cm. it was concluded that the serum formula gave good results and fulfilled the parameter requirements for evaluating the physical quality of the preparation. The antioxidant test results of the serum basil leaf extract formula had  $IC_{50}$  values in F1 ( $94.605 \mu\text{g/mL}$ ), F2 ( $74.900 \mu\text{g/mL}$ ), and F3 ( $54.695 \mu\text{g/mL}$ ) the three formulas were categorized into strong antioxidants.

**Keywords:** *Ocimum basilicum* L., Serum, Antioxidant, DPPH