

## ABSTRACT

### ***ANTIOXIDANT ACTIVITY TESTING OF NUTRACEUTICAL GRANULE EFFERVESCENT OF PURPLE SWEET POTATO LEAF EXTRACT (*Ipomoea batatas L.*) ANTIN-3 VARIETIES***

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Antin-3 leaves are known to have antioxidant activity but their use in the community is not optimal so it needs to be formulated into more effective pharmaceutical preparations, namely effervescent granule preparations. The purpose of this study is to find out whether effervescent granules of antin-3 leaf extract have antioxidant activity with a combination of PVP binding agents K-30 and CMC Na with F1 (3:2); F2 (3,5:1,5) ; F3 (4:1). The method used is the DPPH method using a UV-Vis Spectrophotometry instrument. the average IC50 value of the Effervescent Granule Sample obtained results in Formula 1 of 669,103 ppm  $\pm$  50,035, formula 2 of 355,929 ppm  $\pm$  8,097, and formula 3 of 395,183 ppm  $\pm$  10,860. and Pure Vitamin C as a comparison, which is 10.201 ppm  $\pm$  0.135. In the results of this antioxidant activity test, better results were also obtained in F2. From the F1, F2, and F3 data, the results of (>200) ppm should theoretically be the result of good antioxidant activity (<50) ppm, this is likely due to errors during preparation that have not been maximized, and errors in storing effervescent granules that are not airtight and also not tightly closed, besides that the container for storing effervescent granules is also not in a dark container. In the statistical test of Annova One Way, a sig result (0.00) was obtained, which means that there is a significant difference between F1, F2, and F3. Therefore, from these data, it can be proven that variations in the concentration of binder affect antioxidant activity.

**Keyword** : Antin-3, antioxidant, DPPH, granule *effervescent*, IC50, Spectrophotometry UV-Vis