THE INFLUENCE OF REFLUX EXTRACTION TIME ON ANTIOXIDANT ACTIVITY ETHYL ACETATE EXTRACT OF MOUNTAIN PAPAYA SEEDS (*Carica pubescens*)

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ABSTRAC

Background : Degenerative diseases are one of the causes of high mortality rates due to free radical compounds. An alternative that can be used to minimize excess free radicals in the body is by using antioxidant compounds. Secondary metabolites in plants have the potential to act as antioxidants. The secondary metabolites found in the seeds of Carica pubescens are suspected to have potential as antioxidant compounds. Antioxidant compounds from plants can be obtained through extraction using solvents such as ethyl acetate. Ethyl acetate is semi-polar, so it is expected to attract both polar and non-polar compounds from Carica pubescens seeds. The extraction method used is the reflux method. The extraction process is influenced by several factors, one of which is the extraction time. Therefore, it is necessary to conduct research on the effect of reflux extraction time on the antioxidant activity of ethyl acetate extract from Carica pubescens seeds. **Objective** : The objective of this research is to determine the effect of reflux extraction time on the antioxidant activity of ethyl acetate extract from Carica pubescens seeds. **Research Method** : Extraction using the reflux method with variations of 120 minutes, 150 minutes, and 180 minutes. The antioxidant activity research was conducted using the DPPH method through UV-Vis spectrophotometry. The determination of antioxidant activity is seen from the acquisition of the IC50 value. The effect of extraction time on antioxidant activity was conducted using a t-test. **Research Results** : The results of the study indicate that the ethyl acetate extract of Carica pubescens seeds contains very weak antioxidants (IC50>50) and the t-test yielded a Sig. value of 0.513 (Sig.> 0.05). **Conclusion** : From the research results, it can be concluded that there is no effect of extraction time on the antioxidant activity of the ethyl acetate extract of Carica pubescens seeds.

Keywords : Extraction time, Antioxidant, Carica pubescens seeds, Ethyl acetate, DPPH