

## INTISARI

### **PURYANI I., 2019., UJI AKTIVITAS ANTIOKSIDAN EKSTRAK ETANOL DAUN WANI (*Mangifera caesia* Jack.) TERHADAP TIKUS GALUR WISTAR YANG DIINDUKSI ALOKSAN**

Wani (*Mangifera caesia* Jack.) merupakan salah satu tanaman buah tropika yang berkerabat dekat dengan mangga. Mangga diketahui memiliki kemampuan antidiabetes. Tujuan penelitian ini adalah mengetahui aktivitas antioksidan ekstrak etanol daun wani (*Mangifera caesia* Jack.) pada DPPH (*1,1-diphenyl-2-picrylhydrazil*) secara *in-vitro* dan mengetahui aktivitas antioksidan enzim *glutation peroksidase* ekstrak etanol daun wani pada tikus galur wistar yang diinduksi aloksan.

Serbuk daun wani dimaserasi dengan pelarut etanol. Ekstrak kental etanol daun wani diuji aktivitas antioksidan menggunakan metode DPPH (*1,1-diphenyl-2-picrylhydrazil*) dan uji aktivitas *glutation peroksidase*. Uji aktivitas antioksidan daun wani pada hewan uji yaitu dengan mengukur kadar enzim *glutation peroksidase* (GPx) setelah pemberian ekstrak daun wani pada tikus galur wistar hiperglikemia, dimana kontrol negatif (suspensi CMC 0,5 %), kontrol positif (glibenklamid), ekstrak daun wani dengan dosis 125, 250, 500 mg/kgBB. Jaringan hepar tikus diambil dan diukur kadar antioksidan enzim *glutation peroksidase* (GPx). Kadar *glutation peroksidase* dianalisis menggunakan uji *one way anova* dan uji *post hoc*.

Hasil penelitian menunjukkan bahwa ekstrak etanol daun wani memiliki aktivitas antioksidan pada DPPH secara *in-vitro* dengan nilai IC<sub>50</sub> sebesar 35,399 ppm dimana nilai tersebut termasuk dalam golongan antioksidan yang sangat kuat. Pemberian ekstrak daun wani mampu meningkatkan aktivitas *glutation peroksidase* pada tikus yang diinduksi aloksan paling baik adalah dengan dosis 500 mg/kgBB.

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**Kata kunci** : Aloksan, Antioksidan, ekstrak etanol daun wani, DPPH, *Glutation peroksidase* (GPx)

## ABSTRACT

### **PURYANI I., 2019., TEST OF ANTIOXIDANT ACTIVITIES OF WANI LEAF ETHANOL EXTRACTS (*Mangifera caesia* Jack.) ON THE WISTAR STICKED RATS ALOKSAN INDUCED**

Wani (*Mangifera caesia* Jack.) Is one tropical fruit plant that is closely related to mangoes. Mangoes are known to have antidiabetic abilities. The purpose of this study was to determine the antioxidant activity of ethanolic extract of Wani leaves (*Mangifera caesia* Jack.) In DPPH (*1,1-diphenyl-2-picrylhydrazil*) in vitro and to find out the antioxidant activity of glutathione peroxidase enzyme ethanolic extract of wani leaves in wistar strain rats which induced alloxan.

Wani leaf powder macerated by ethanol coating. The ethanol extract of Wani leaves was tested for antioxidant activity using the DPPH (*1,1-diphenyl-2-picrylhydrazil*) method and the glutathione peroxidase activity test. Antioxidant activity test of Wani leaves in test animals is by measuring the levels of *glutathione peroxidase* (GPx) enzyme after administration of Wani leaf extract in hyperglycemic wistar strain rats, where negative control (cmc 0.5% suspension), positive control (glibenclamide), Wani leaf extract with a dose of 125, 250, 500 mg / kgBB. hepar rhyme taken and measured antioxidant levels of *glutathioneperoxidase* (GPx) enzyme. *Glutathione peroxidase* levels were analyzed using *oneway ANOVA* test and *post hoc* test.

The results showed that the ethanol extract of Wani leaves had antioxidant activity in DPPH in-vitro with an IC50 value of 35,399 ppm where the value was included in the group of highly active antioxidants. The administration of Wani leaf extract can increase *glutathione peroxidase* activity in alloxan-induced rats, best at a dose of 500 mg / kgBB.

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Keywords: Alloxan, Antioxidants, ethanol extract of Wani leaves, DPPH, Glutathione peroxidase (GPx)