

INTISARI

LARASATI, R., 2018, PENGARUH KOMBINASI EKSTRAK AIR LIDAH BUAYA (*Aloe vera* L) DAN DAUN STEVIA (*Stevia rebaudiana* Bertoni) TERHADAP ENZIM GLUTATION PEROXIDASE DAN GAMBARAN HISTOPATOLOGI HATI PADA TIKUS PUTIH JANTAN YANG DIINDUKSI ALOKSAN

Daun stevia (*Stevia rebaudiana* Bertoni) dan daun lidah buaya (*Aloe vera* L.) terbukti dapat menurunkan kadar glukosa darah diantaranya steviosida pada daun stevia dan senyawa alkaloid, saponin serta glikosida aloe emodin pada lidah buaya. Penelitian ini bertujuan untuk mengetahui kombinasi dari dua tanaman tersebut dapat meningkatkan aktivitas enzim glutation dan memperbaiki kerusakan pada hati.

Penelitian ini menggunakan 35 ekor tikus yang dibagi menjadi 7 kelompok. Kelompok I kontrol normal, II kontrol positif, III kontrol negatif, IV ekstrak daun stevia 400 mg/ kgBB, V ekstrak daun lidah buaya 400 mg/ kgBB, VI kombinasi ekstrak daun stevia 25%: ekstrak daun lidah buaya 75% , VII kombinasi ekstrak daun stevia 50%: ekstrak daun lidah buaya 50%. Pemberian dilakukan selama 14 hari secara peroral, setelah pemberian aloksan 140 mg/kgBB secara i.p. Pengamatan terhadap enzim glutation peroxidase dilakukan setelah perlakuan pemberian ekstrak dengan mengambil organ hati pada hewan uji.

Hasil perlakuan pada hewan uji memberikan efek peningkatan aktivitas GPx dan perbaikan kerusakan sel hati. Efek paling tinggi diperoleh pada ekstrak tunggal lidah buaya dan kombinasi stevia 25%: lidah buaya 75%, walaupun berbeda secara signifikan dengan kontrol positif glibenklamid.

Kata kunci : daun stevia, daun lidah buaya, GPx, histopatologi hati

ABSTRACT

Larasati, R., 2018, THE EFFECT OF ALOE VERA (*Aloe vera* L) And Stevia (*Stevia rebaudiana* Bertoni) LEAF WATER EXTRACTS ON GLUTATION PEROXIDASE ENZYME AND LIVER HISTOPATHOLOGY REPRESENTATION IN ALLOXAN-INDUCED MALE WHITE RAT.

Stevia (*Stevia rebaudiana* Bertoni) and aloe vera (*Aloe vera* L.) leaf can evidently lower blood glucose level, such as steviosida on stevia leaf and alkaloid compounds, saponins and aloe emodin glycosides in aloe vera. This study aims to determine the combination of these two plants can increase glutathione enzyme activity and repair damage to the liver.

This research employed 35 rats divided into 7 groups: I normal control, II positive control, III negative control, IV stevia leaf extract 400 mg/ kgBW, V aloe vera leaf extract 400 mg/ kgBW, VI combined stevia and aloe vera leaf extracts 25% : 75%, and VII combined stevia and aloe vera leaf extracts 50% : 50%. The administration of tested preparation was conducted per oral for 14 days after having been induced with alloxane 140 mg/kg BW. The observation on glutathione peroxidase enzyme was conducted after extract administration treatment by taking liver organ in tested animal.

The result of measurement on the improvement of glutathione peroxidase enzyme activity and repair of liver cell damage. The highest effect was obtained on a single extract of aloe vera and a combination of 25% stevia: aloe vera 75%, but its potential improvement was lower than positive control (glibenclamide).

Keywords: stevia leaves, aloe vera leaves, GPx, liver histopathology