

ABSTRACT

Chori, Finka Aidila Mifatisul. 2013. Effect of Ethanol Extract Leaves of *Annona muricata* L. to levels Superoxide Dismutase (SOD) and Malondialdehyde (MDA) Liver Female Mice (*Mus musculus*) induced by 7,12-Dimetilbenz (α) Antrasen In Vivo. Thesis, Department of Biological Science and Technology State Islamic University (UIN) Malang. Supervisor: (I). Dr. Retno Susilowati, M.Si. (II) Dr. H. Munirul Abidin, M. Ag

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The presence of excessive free radicals that cause oxidative stress. The high oxidative stress, causing an increase in free radical activity in the body and lower the antioxidant enzymatic activity. Free radical activity can only be inhibited by the presence of antioxidants. One of the plants that have been shown to contain antioxidants is the leaves of *Annona muricata* L. The content that is *Annona muricata* leaves as antioxidants are flavonoids. This study aimed to determine the effect of ethanol extract of leaves of *Annona muricata* L. on levels of Superoxide Dismutase (SOD) and Malondialdehyde (MDA) female mice liver induced by 7,12 - dimetilbenz (α) antrasen in vivo.

This research used Completely Randomized Design (CRD) with six treatments and four replications. The treatment used is ethanol extract of leaves of *Annona muricata* L. with four doses, the first dose (100 mg / kg / oral / day), II dose (150 mg / kg / oral / day), doses III (200 mg / kg / oral / day) and IV dose (250 mg / kg / oral / day). To measure the enzymatic antioxidant activity, the parameters used are the levels of superoxide dismutase (SOD). To measure the activity of free radicals, the parameters used are the levels of malondialdehyde (MDA). The data were analyzed using ANOVA with a significance level of 1%.

The results showed that the ethanol extract of leaves of *Annona muricata* L. effect on increased levels of SOD and decreased MDA levels in the liver of female mice (*Mus musculus*) induced by 7.12-dimetilbenz (α) antrasen ($p < 0,05$). Four doses of ethanol extract of leaves of *Annona muricata* is given, 3 doses (200 mg / kg / oral / day) is the most effective dose in increasing levels of SOD (99.6 U / ml) to near normal levels (135.4 U / ml) and is able to reduce levels of MDA (16.607 nmol / ml) to near normal levels (8.25 nmol / ml).

