

**THE POTENTIAL OF *Ocimum sanctum* LEAF EXTRACT IN
DECREASING LIVER MALONDIALDEHYDE (MDA)
LEVEL OF MICE (*Mus musculus*) EXPOSED
BY LEAD**

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ABSTRACT

The purpose of this research was to determine the potential of *Ocimum sanctum* leaf extract in decreasing liver malondialdehyde (MDA) level of mice (*Mus musculus*) exposed by lead. Experiment design is used Completely Randomized Design. This research was done for 24 days using male mice as the experimental animal which were divided into five groups; negative control (Tween 80 1% and aquadest), positive control (Tween 80 1% and lead acetate 20 mg/kg BW), T1 (*Ocimum sanctum* leaf extract 140 mg/kg BW and lead acetate 20 mg/kg BW), T2 (*Ocimum sanctum* leaf extract 280 mg/kg BW and lead acetate 20 mg/kg BW), and T3 (*Ocimum sanctum* leaf extract 560 mg/kg BW and lead acetate 20 mg/kg BW). Extract of *Ocimum sanctum* was given orally for 24 days and lead acetate was given orally for 21 days (from the 4th day until the 24th day). On 25th day, mice were sacrificed and liver malondialdehyde were measured using Thiobarbituric Acid (TBA) Assay. The results were analysed by One Way ANOVA test followed by Tukey HSD test. Results of research show the averages of malondialdehyde concentration on negative control ($218.00^a \pm 50.16$ nmol/gram), positive control ($438.50^c \pm 27.57$ nmol/gram), T1 ($427.25^c \pm 25.91$ nmol/gram), T2 ($369.25^{bc} \pm 32.25$ nmol/gram), and T3 ($310.00^b \pm 33.69$ nmol/gram). In conclusion, the study proves that *Ocimum sanctum* leaf extract administration has potential in decreasing liver malondialdehyde (MDA) level of mice which were exposed by lead.

Keywords : *Ocimum sanctum*, lead, liver, malondialdehyde