

## ABSTRACT

**THE EFFECT OF REPEATED DOSAGE OF *Helianthus annuus* L. LEAVES 80% ETHANOLIC EXTRACT IN MICE INFECTED WITH *Plasmodium berghei***

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Sunflower that has Latin name *Helianthus annuus* L is a family of Asteraceae. Empirically sunflower leaves have been used as antimalarial drugs. But until now there is still no scientific evidence about the effectiveness of sunflower leaf extract as an antimalarial drug. The objective of this study was to determine the effect of 80% ethanolic extract of *Helianthus annuus* L. leaves against mice infected with *Plasmodium berghei*. *Helianthus annuus* L. leaves were macerated using 80% ethanol and tested *in vivo* using a *four-day Peter suppressive test* in mice weighing 20-30 gram. Mice infected with blood donor mice containing red blood cells infected with *Plasmodium berghei* with parasitemia > 20%. The extract would be administered for 4 consecutive days orally with dose 0,1; 1; 10; 100 mg / kg body weight if parasite level in mice reach 1-2%. Blood smear sampling from each rat was performed to determine the level of parasitemia for five days compared with untreated subjects, then ED<sub>50</sub> was calculated from the analysis of the inhibition level within five days with probit analysis. The results showed that ethanol extract of 80% of *H. annuus* L. leaves the largest dose of 100 mg / kgBW can inhibit 82.05% and have ED<sub>50</sub> value of 2.27 mg / kgBW. Based on the results obtained, further research that can be done is the antimalarial toxicity test of 80% ethanol extract of *Helianthus annuus* L leaves, so it can see the safety of the ethanol extract 80% of leaves *Helianthus annuus* L. as antimalarial drugs.

**Keywords:** *Helianthus annuus* L., Sunflower, inhibition of *Plasmodium berghei* parasitemia. Antimalarial, *in vitro*, *in vivo*.