

- APOCYNACEAE
- PLASMODIUM

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**SKRIPSI**

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**UJI AKTIVITAS ANTIMALARIA *IN VIVO*  
EKSTRAK DIKLOROMETANA DAN METANOL  
BIJI *KOPSIA ARBOREA* BL TERHADAP  
*PLASMODIUM BERGHEI* PADA MENCIT**

**MILIK  
PERPUSTAKAAN  
UNIVERSITAS AIRLANGGA  
SURABAYA**



**FAKULTAS FARMASI UNIVERSITAS AIRLANGGA  
BAGIAN ILMU BAHAN ALAM  
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**LEMBAR PENGESAHAN**

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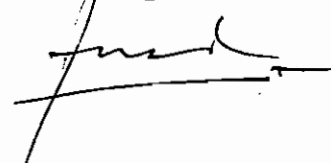
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## ABSTRACT

*Kopsia arborea* Bl is empirically used as traditional drug in some cities in Indonesia. *Kopsia arborea* Bl is Apocynaceae's family. Based on chemotaxonomy *Kopsia arborea* Bl contain alkaloid, flavonoid, saponin and terpenoid. Thus substances has antimalarial activity which had proved in some experiments, so can be noted that *Kopsia arborea* Bl has antimalarial activity. Dichloromethane and Methanol extract of *Kopsia arborea* Bl were used to study antimalarial effect using *in vivo* model, Peter's test (*The 4-Day Suppressive Test of Blood Schizontocidal Action*).

Female mice weighing 18-35 g were used in this experiment. Blood from donor mice with parasitemia  $\geq 20\%$  were diluted in alcheivers medium (1: 3) and buffer phosphat were added and waiting approximately three days or get infected red blood cells 5% and after that each mice receive 0,2 ml parasit suspension intraperitoneally.

The plant extract were suspended with 0,5% CMC Na and DMSO 0,8%. The doses ranging for dichloromethane extract between 0,8 – 160 mg/kg body weight and for methanol extract between 1 – 75 mg/kg body weight. The extract were administrated daily from initial day after infection for four days by oral route. In the  $D_0 - D_6$  blood were taken from tail and then stained with Giemsa and parasitised red cells were counted.

Treated animals showed a lower parasitemia compared with untreated animals. This extract was active againts *Plasmodium berghei*, it showed inhibition for dichlorometane extract up to 60,00% and for methanol extract up to 80,49%.  $ED_{50}$  value was calculated from log dose/probit activity.  $ED_{50}$  of DCM extract of *Kopsia arborea* Bl was 57,06942 mg/kg body weight and from methanol extract was 19,38764 mg/kg body weight.

Key words : *Kopsia arborea* Bl., Apocynaceae, *Plasmodium berghei*, antimalarial.