SKRIPSI

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EKSTRAK DIKLOROMETANA DAN METANOL
BIJI KOPSISA ARBOREA BL TERHADAP
PLASMODIUM BERGHEI PADA MENCIT

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ABSTRACT

*Kopsia arborea* Bl is empirically used as tradisional 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 ≥ 20 % were diluted in alchivers 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 D₀ – D₆ 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 againsts *Plasmodium berghei*, it showed inhibition for dichlorometane extract up to 60,00 % and for methanol extract up to 80,49 %. ED₅₀ value was calculated from log dose/probit activity. ED₅₀ 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.