ABSTRACT

Antimalarial Activity *In Vitro* Screening of 80% Ethanol Extract of *Strophacanthus membranifolius, Strobilanthe s involucrata, Gomphostemma javanicum, Piper sp.,* And *Psychotria sp.*

Indonesia is known in biodiversity rich of the plants species of which only a small proportion of the species have been investigated in detail. This research was carried out to investi gate the antimalarial activity of five plants from the Cangar forest in East Java. The 80% ethanol extract of *Strophacanthus membranifolius, Strobilanthes involucrata, Gomphostemma javanicum, Piper sp,* and *Psychotria sp.* has been tested for their *in vitro* antimalarial activity against *Plasmodium falciparum* 3D7. The result showed that ethanol extract of *Piper sp.* was the most active as antimalarial with IC_{50} 0.207 μg/mL whereas the *Strophacanthus membranifolius, Strobilanthes involucrata,* and *Gomphostemma javanicum* were active as antimalarial with IC_{50} value 3.498 μg/mL, 1.268 μg/mL and 1.454 μg/mL. Respectively 80% ethanol extract of *Psychotria sp.* was inactive as antimalarial due to high value of IC_{50} that is 381.646 μg/mL.

Keywords : plants, East Java, et hanol extract, *Plasmodium falciparum,* antimalarial activity