AKTIVITAS ANTIMALARIA EKSTRAK ETANOL KULIT BUAH GARCINIA MANGOSTANA LINN. TERHADAP PLASMODIUM FALCIPARUM

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ABSTRACT

Antimalarial Activity of Ethanol Extract of Garcinia mangostana Linn. Pericarp on Plasmodium falciparum

This research was conducted to investigate antimalarial activity of ethanol extract of Garcinia mangostana Linn. pericarp. Ethanol 50% extract, ethanol 60% extract, ethanol 70% extract, ethanol 80% extract, and ethanol 96% extract of this plant were tested in vitro against Plasmodium falciparum strain 3D7. All of the ethanol extracts showed complete parasite growth inhibition at concentration of 100 μg/mL within 48 hours of incubation period. The percentages of growth inhibition induced by ethanol 50% extract, ethanol 60% extract, ethanol 70% extract, ethanol 80% extract, and ethanol 96% extract were found to be 29.10%; 34.23%; 30.64%; 41.51%; and 51.09% respectively at a concentration of 10 μg/mL. The highest activity was found in ethanol 96% extract with IC50 value of 8.53 μg/mL. The other extracts showed very weak antimalarial effects with IC50 value between 10 μg/mL and 100 μg/mL.

Keywords: Garcinia mangostana Linn., ethanol extract, Plasmodium falciparum, antimalarial activity