

[Abstract](#)

[Fitoterapia](#). 2007 Dec;78(7-8):455-9. Epub 2007 May 10.

The antiplasmodial activity of spermine alkaloids isolated from *Albizia gummifera*.

[Rukunga GM](#)¹, [Muregi FW](#), [Tolo FM](#), [Omar SA](#), [Mwitari P](#), [Muthaura CN](#), [Omlin E](#), [Lwande W](#), [Hassanali A](#), [Githure J](#), [Iraqi FW](#), [Mungai GM](#), [Kraus W](#), [Kofi-Tsekpo WM](#).

[Author information](#)

- ¹Kenya Medical Research Institute, PO BOX 54840, Nairobi, Kenya.
grukunga@memri.org

Abstract

In the present study the methanolic extract of *Albizia gummifera* was fractionated into various fractions. These fractions were tested against chloroquine sensitive (NF54) and resistant (ENT30) strains of *Plasmodium falciparum*. All other fractions apart from the alkaloidal fraction showed low activity with IC 50 above 3 microg/ml. The alkaloidal fraction exhibited strong activity against NF54 and ENT30 with IC 50 of 0.16+/-0.05 and 0.99+/-0.06 microg/ml, respectively. Five known spermine alkaloids were isolated from the alkaloidal fraction. These alkaloids exhibited activities against NF54 and ENT30 with IC 50 ranging from 0.09+/-0.02 to 0.91+/-0.10 microg/ml. Four of the alkaloids were further evaluated for in vivo activity against rodent malaria parasite *Plasmodium berghei*. The alkaloids showed percentage chemosuppression of parasitaemia in mice ranging from 43 to 72%. The use of the extracts *A. gummifera* for treatment of malaria in traditional medicine seems to have a scientific basis.

PMID:

17601685

[PubMed - indexed for MEDLINE]