**Artemisinin**

**Artemisinin**, also called **qinghaosu (China)** is an antimalarial [drug](https://www.britannica.com/science/drug-chemical-agent) derived from the sweet [wormwood](https://www.britannica.com/plant/wormwood-plant) plant, Artemisia annua. Artemisinin is effective against all the malaria-causing [protozoal](https://www.britannica.com/science/protozoan) organisms in the genus [Plasmodium](https://www.britannica.com/science/Plasmodium-protozoan-genus). The drug is particularly useful in the treatment of infections involving [chloroquine](https://www.britannica.com/science/chloroquine)-resistant parasites and infections involving multidrug-resistant P. falciparum, which is the deadliest of the malaria protozoans.

 

Artemisinin is a sesquiterpene lactone containing an unusual peroxide bridge. This endoperoxide 1,2,4-trioxane ring is responsible for the drug's mechanism of action.

Derivatives of artemisinin such as artesunate, artemether etc. also have potent activity against Plasmodium falciparum.

 

**ACT = Artemisinin combination therapies**

Artemether-lumefantrine ACTs recommended by the WHO

Artesunate+amodiaquine for treatment of uncomplicated

Artesunate+mefloquine malaria

Artesunate+sulfadoxine-pyrimethamine

**Biosynthesis of Artemisinin**

*Students\*\*\* study only MVA path way not MEP path way*





**Mechanism of Action**



**Synthesis of Artemisinin**



More about Artemisinin on websites:

 Pl. view the slide show at the following site:

<https://www.slideshare.net/saptarshisamajdar/artemisinin-72509028>