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# Quinine

National Cancer Institute

## Source

National Cancer Institute. *Quinine*. NCI Thesaurus. Code C794.

A quinidine alkaloid isolated from the bark of the cinchona tree. Quinine has many mechanisms of action, including reduction of oxygen intake and carbohydrate metabolism; disruption of DNA replication and transcription via DNA intercalation; and reduction of the excitability of muscle fibers via alteration of calcium distribution. This agent also inhibits the drug efflux pump P-glycoprotein which is overexpressed in multi-drug resistant tumors and may improve the efficacy of some antineoplastic agents. (NCI04)