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Combretastatin A-1

National Cancer Institute

Source

National Cancer Institute. *Combretastatin A-1*. NCI Thesaurus. Code C162344.

A stilbenoid originally isolated from the plant *Combretum caffrum*, with vascular-disrupting and antineoplastic activities. Upon administration, combretastatin A1 (CA1) promotes rapid microtubule depolymerization; endothelial cell mitotic arrest and apoptosis; destruction of the tumor vasculature; disruption of tumor blood flow; and tumor cell necrosis. In addition, orthoquinone intermediates, metabolized from combretastatin A1 by oxidative enzymes found to be elevated in some tumor types, may bind to tumor cell thiol-specific antioxidant proteins and DNA, and stimulate oxidative stress by enhancing superoxide/hydrogen peroxide production.