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Microtubule Inhibitor SCB01A

National Cancer Institute

Source

National Cancer Institute. *Microtubule Inhibitor SCB01A*. NCI Thesaurus. Code C143158.

An aroylindole derivative and tubulin polymerization inhibitor, with potential tubulin-inhibiting, vascular-disrupting and antineoplastic activities. Upon administration, tubulin polymerization inhibitor SCB01A binds at the colchicine binding site of tubulin and prevents its polymerization in tumor blood vessel endothelial cells and in tumor cells. This blocks the formation of the mitotic spindle and leads to both cell cycle arrest at the G2/M phase and tumor cell apoptosis. Also, this agent's effect on the tumor blood vessel endothelial cells leads to a disruption of the tumor vasculature and tumor blood flow, which deprives tumor cells of nutrients and induces tumor cell apoptosis.