

[Open Peer Review on Qeios](#)

Vincristine

National Cancer Institute

Source

National Cancer Institute. *Vincristine*. NCI Thesaurus. Code C933.

A natural alkaloid isolated from the plant *Vinca rosea* Linn. Vincristine binds irreversibly to microtubules and spindle proteins in S phase of the cell cycle and interferes with the formation of the mitotic spindle, thereby arresting tumor cells in metaphase. This agent also depolymerizes microtubules and may also interfere with amino acid, cyclic AMP, and glutathione metabolism; calmodulin-dependent Ca^{++} -transport ATPase activity; cellular respiration; and nucleic acid and lipid biosynthesis. (NCI04)