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Nitracrine

National Cancer Institute

Source

National Cancer Institute. *Nitracrine*. NCI Thesaurus. Code C694.

An acridine derivative with potential cytostatic and antitumor activities. Although the exact mechanism of action has not been fully elucidated, nitracrine induces the unwinding of supercoiled DNA and binds to the DNA through intercalation, forming drug-DNA adducts and DNA interstrand crosslinks. This inhibits RNA synthesis, protein production, cell growth, DNA replication and cell proliferation; altogether, this may promote apoptosis. Since cancer cells have increased metabolism and proliferate at an increased rate, nitracrine may induce tumor cell apoptosis.