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Procaspase Activating Compound-1 VO-100

National Cancer Institute

Source

National Cancer Institute. *Procaspase Activating Compound-1 VO-100*. NCI Thesaurus. Code C120318.

An orally bioavailable procaspase activating compound-1 (PAC-1), with potential proapoptotic and antineoplastic activities. Upon administration, VO-100 binds to and forms a chelating complex with zinc (Zn) ions inside cells, which prevents the binding of Zn ions to procaspase-3 (PC3) and abrogates the Zn-mediated inhibition of PC3. This allows for the proteolytic autoactivation of PC3 into the active form caspase-3. This results in the selective caspase-3-mediated induction of apoptosis and cell death in cancer cells. In addition, VO-100 is able to cross the blood-brain-barrier (BBB). PC3, a Zn-inhibited proenzyme, is upregulated in a variety of cancer cell types, while its expression is minimal in normal healthy cells.