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DM-CHOC-PEN

National Cancer Institute

Source

National Cancer Institute. *DM-CHOC-PEN*. NCI Thesaurus. Code C90539.

A cholesterol carbonate derivative of 4-demethylpenclomedine (DM-PEN) with potential antineoplastic alkylating activity. Upon intravenous administration of 4-demethylcholesteryloxycarbonylpenclomedine, the carbonium moiety binds to and alkylates DNA at the N7 guanine position, thereby causing DNA crosslinks. This prevents DNA replication, inhibits cellular proliferation and triggers apoptosis. In addition, due to its lipophilic cholesteryl moiety this agent is able to cross the blood brain barrier (BBB) and therefore can be given intravenously compared to other alkylating agents that need to be given intra-cranially.