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Evofosfamide

National Cancer Institute

Source

National Cancer Institute. *Evofosfamide*. NCI Thesaurus. Code C71722.

A hypoxia-activated prodrug of the cytotoxin bromo-isophosphoramide mustard (Br-IPM) conjugated with 2-nitroimidazole, with potential antineoplastic activity. When exposed to hypoxic conditions, such as those found in hypoxic tumors, the 2-nitroimidazole moiety of evofosfamide is reduced. This releases the DNA-alkylating Br-IPM moiety, which introduces intra- and inter-strand DNA crosslinks in nearby cells; the crosslinks inhibit both DNA replication and cell division, and may lead to apoptosis of cells in the tumor. The inactive form of the prodrug is stable under normoxic conditions, which may limit systemic toxicity.