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Topical Gemcitabine Hydrochloride

National Cancer Institute

Source

National Cancer Institute. *Topical Gemcitabine Hydrochloride*. NCI Thesaurus. Code C74085.

A topical preparation of gemcitabine hydrochloride with antineoplastic activity.

Gemcitabine, an analogue of the antimetabolite nucleoside deoxycytidine, is converted intracellularly to the active metabolites difluorodeoxycytidine di- and triphosphate (dFdCDP, dFdCTP). dFdCDP inhibits ribonucleotide reductase, thereby decreasing the deoxynucleotide pool available for DNA synthesis; dFdCTP is incorporated into DNA, resulting in DNA strand termination and apoptosis.