



LKT Laboratories, Inc.

Gemcitabine Hydrochloride

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Product Information

Product ID G1745
CAS No. 122111-03-9
Chemical Name 2'-deoxy-2',2'-difluorocytidine monohydrochloride ((beta)-isomer)

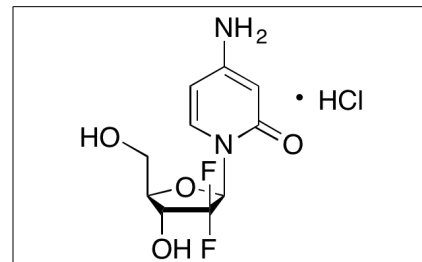
Synonym Gemzar

Formula $C_9H_{11}F_2N_3O_4 \cdot HCl$
Formula Wt. 299.66
Melting Point 287-292 °C
Purity ≥98%
Solubility Soluble in water. Slightly soluble in methanol, acetone, DMSO.

Store Temp Ambient

Ship Temp Ambient

Description Gemcitabine is a 2'-deoxycytidine analog antimetabolite that inhibits ribonucleotide reductase and DNA synthesis. Gemcitabine exhibits anticancer chemotherapeutic and antiviral activities. In pancreatic cancer cells, gemcitabine induces cell death via mitochondrial complexation of MST1 and cyclophilin D. Additionally, this compound is active against strains of HIV-1 and feline leukemia virus (FeLV/FeLuk).



Bulk quantities available upon request

Product ID	Size
G1745	25 mg
G1745	100 mg
G1745	250 mg

- References** Chen SH, Li DL, Yang F, et al. Gemcitabine-induced pancreatic cancer cell death is associated with MST1/Cyclophilin D mitochondrial complexation. *Biochimie*. 2014 Apr 13. Epub ahead of print]. PMID: 24732633.
- Su CH, Chu WC, Lan KH, et al. Gemcitabine causes telomere attrition by stabilizing TRF2. *Eur J Cancer*. 2012 Dec;48(18):3465-74. PMID: 22704123.
- Greggs WM 3rd, Clouser CL, Patterson SE, et al. Discovery of drugs that possess activity against feline leukemia virus. *J Gen Virol*. 2012 Apr;93(Pt 4):900-5. PMID: 22258856.
- Cerqueira NM, Fernandes PA, Ramos MJ. Understanding ribonucleotide reductase inactivation by gemcitabine. *Chemistry*. 2007;13(30):8507-15. PMID: 17636467.
- Blackwood E, Epler J, Yen I, et al. Combination drug scheduling defines a "window of opportunity" for chemopotential of gemcitabine by an orally bioavailable, selective ChK1 inhibitor, GNE-900. *Mol Cancer Ther*. 2013 Oct;12(10):1968-1980. PMID: 23873850.

Reconstituted gemcitabine as the hydrochloride salt in the original vials is chemically stable at room temperature for 35 days

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.