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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Gemcitabine HCl

DNA polymerase inhibitor
Catalog No. SIH-623



Discovery through Partnership | Excellence through Quality

Product Name

Gemcitabine HCl

Description

DNA polymerase inhibitor

Purity

>98% (HPLC); NMR (conforms)

CAS No.

122111-03-9

Molecular Formula

$C_9H_{11}F_2N_3O_4 \cdot HCl$

Molecular Weight

299.7

Field Of Use

Not for use in humans. Not for use in diagnostics or therapeutics. For in vitro research use only.

Properties

Storage Temperature

-20°C

Shipping Temperature

Shipped Ambient

Product Type

Inhibitor

Solubility

May be dissolved in DMSO (20 mg/ml); or Water (25 mg/ml)

Source

Synthetic

Appearance

Off-white powder

SMILES

C1=CN(C(=O)N=C1N)C2C(C(C(O2)CO)O)(F)F.Cl

InChI

InChI=1S/C9H11F2N3O4.ClH/c10-9(11)6(16)4(3-15)18-7(9)14-2-1-5(12)13-8(14)17;/h1-2,4,6-7,15-16H,3H2,(H2,12,13,17);1H/t4-,6-,7-;/m1./s1

InChIKey

OKKDEIYWILRZIA-OSZBKLCCSA-N

Safety Phrases

Classification: Danger. Hazard Statements: H360. Precautionary Statements: P201 - P202 - P280 - P308 + P313 - P405 - P501

Cite This Product

Gemcitabine HCl (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SIH-623)

Biological Description

Alternative Names

2'-Deoxy-2',2'-difluorocytidine hydrochloride; dFdC

Research Areas

Cancer, Cell Signaling, DNA Synthesis, DNA/RNA, Epigenetics and Nuclear Signaling, Topoisomerases

PubChem ID

60749

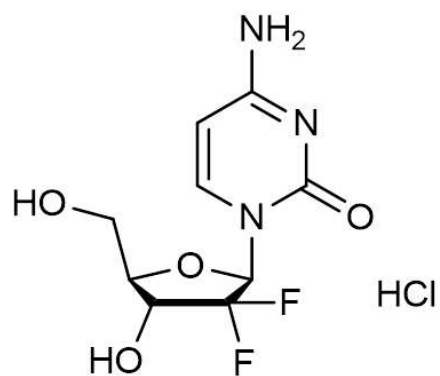
Scientific Background

A clinically useful anticancer agent.¹ It exerts its cytotoxic effects via the metabolites gemcitabine diphosphate (dFdCDP) and gemcitabine triphosphate (dFdCTP). dFdCTP is an inhibitor of DNA polymerase and is incorporated into DNA resulting in termination of chain elongation and apoptosis. dFdCDP is an inhibitor of ribonucleotide reductase which results in depletion of deoxyribonucleotides needed for DNA synthesis. The phosphates have also been reported to inhibit cytidine triphosphate synthetase (CTP synthetase)² and deoxycytidylate deaminase (dCMP deaminase)³. Topoisomerase 1 has also been shown to be a target for gemcitabine.⁴

References

1. Mini E., et al. (2006) Ann. Oncol. 17 Suppl 5:v7.
 2. Heinemann V., et al. (1995) Semin. Oncol. 22(4 Suppl 11):11.
 3. Heinemann V., et al. (1992) Cancer Res. 52:533.
 4. Pourquier P., et al. (2002) Clin. Cancer Res. 8:2499.
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Product Images



Product Citations

Reviews

There are no reviews yet.