

# Gemcitabine

**Catalog No: tcsc0643**



## Available Sizes

**Size:** 100mg

**Size:** 200mg

**Size:** 500mg

**Size:** 1g

**Size:** 2g

**Size:** 5g



## Specifications

**CAS No:**

95058-81-4

**Formula:**

$C_9H_{11}F_2N_3O_4$

**Pathway:**

Cell Cycle/DNA Damage;Cell Cycle/DNA Damage;Autophagy

**Target:**

Nucleoside Antimetabolite/Analog;DNA/RNA Synthesis;Autophagy

**Purity / Grade:**

>98%

**Solubility:**

DMSO : 300mg/mL (1139.8 mM)

**Storage Instruction:**

Powder -20°C for 3 years In solvent -80°C for 12 months

**Alternative Names:**

NSC 613327;LY188011

**Observed Molecular Weight:**

263.2

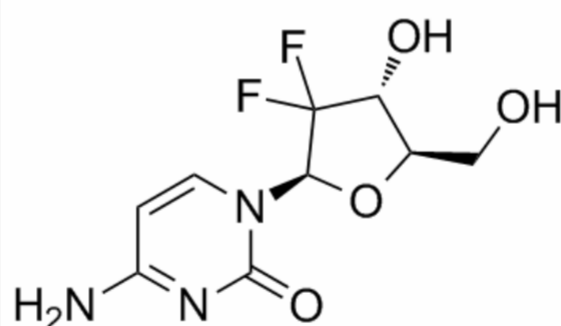
**Product Description**

Gemcitabine (NSC 613327;LY188011) is a **DNA synthesis** inhibitor which inhibits the growth of BxPC-3, Mia Paca-2, PANC-1, PL-45 and AsPC-1 cells with **IC<sub>50</sub>**s of 37.6, 42.9, 92.7, 89.3 and 131.4 nM, respectively.

IC50 & Target: DNA synthesis

**In Vitro:** MTS assay demonstrates that Gemcitabine at 15 nM, indole-3-carbinol (I3C) at 50 μM and the combination does not affect hTERT-HPNE cell viability. However, treatment with Gemcitabine at 15 nM, I3C at 50 μM and the combination results in 31%, 19% and 72% cell death of BxPC-3 cells, respectively.

**In Vivo:** Treatment of the LSL-Kras<sup>G12D/+</sup>; LSL-Trp53<sup>R172H</sup>; Pdx-1-Cre mice with either Gemcitabine (50 mg/kg, i.p.) or the combination DMAPT/Gemcitabine significantly increased the median survival time by more than 30 days compared to the placebo group (254.5 [P=0.015] or 255 days [P=0.018] vs. 217.5 days, respectively). Gemcitabine can be administered via endotracheal spray in rats without marked toxicity with a maximum tolerated dose of 4 mg/kg once a week for 9 weeks. The toxicity of Gemcitabine is lower via lung than oral administration at dosages of 2, 4, and 6 mg/kg.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!