Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

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

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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_{50}**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-$Kras^{G12D/+}$; LSL-$Trp53^{R172H}$; 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.