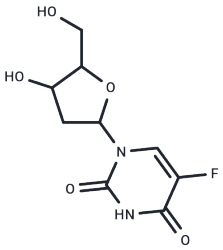
Data Sheet (Cat.No.T0964)

TargetMol

Floxuridine

Chemical Properties



CAS No. :	50-91-9
Formula:	C9H11FN2O5
Molecular Weight:	246.19
Appearance:	no data available
Storage:	Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Floxuridine (FUDR) is an antimetabolite, floxuridine inhibits thymidylate synthase, resulting in disruption of DNA synthesis and cytotoxicity.
Targets(IC50)	Apoptosis,Nucleoside Antimetabolite/Analog,Antibacterial,HSV,DNA/RNA Synthesis
In vitro	Floxuridine exhibits higher affinity for PEPT1 than the corresponding 5'-O-mono amino acid ester prodrugs. [1] Floxuridine combined with Leucovorin results in synergistic inhibitory effects on growth of human T-lymphoblast leukemia cells. [2] Floxuridine significantly inhibits the uptake of both [(3)H]-inosine and [(3)H]-adenosine (60-70% of control), while its amino acid ester prodrugs including Val, Phe, Pro, Asp, and Lys esters exhibits markedly decreased inhibition potency (10-30% of control). [3] Floxuridine inhibits cell proliferation by more than 50% relative to the untreated control cells at 36 days, the cell numbers still increases fourfold compared with the initial cell density. Floxuridine results in prolonged effects on the proliferation of human Tenon's capsule fibroblasts in vitro. [4] Floxuridine (FUDR) is an ideal drug for hepatic arterial infusion (HAI) due to its short half life, steep dose response curve, high total body clearance, and high hepatic extraction. [5]

Solubility Information

Solubility	H2O: 24.6 mg/mL (99.92 mM),Sonication is recommended. DMSO: 35 mg/mL (142.17 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.0619 mL	20.3095 mL	40.619 mL
5 mM	0.8124 mL	4.0619 mL	8.1238 mL
10 mM	0.4062 mL	2.031 mL	4.0619 mL
50 mM	0.0812 mL	0.4062 mL	0.8124 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Tsume Y, et al. Mol Pharm, 2008, 5(5), 717-727.
Mini E, et al. Cancer Treat Rep, 1987, 71(4), 381-389.
Shin HC, et al. Biol Pharm Bull, 2006, 29(2), 247-252.
Khaw PT, et al. Arch Ophthalmol, 1992, 110(8), 1150-1154.
Power DG, et al. Mol Cancer Ther, 2009, 8(5), 12015-1025.