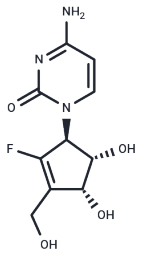
Data Sheet (Cat.No.T16813)

RX-3117

Chemical Properties



CAS No. : 865838-26-2

Formula: C10H12FN3O4

Molecular Weight: 257.22

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	RX-3117 (fluorocyclopentenylcytosine) is a novel a cytidine analog. RX-3117 displays anticancer activity in several cancer cell lines, including gemcitabine-resistant variants.
Targets(IC50)	Nucleoside Antimetabolite/Analog
In vitro	RX-3117 was a very poor substrate for cytidine deaminase (66,000-fold less than gemcitabine). RX-3117 showed a different sensitivity profile compared to cyclopentenyl-cytosine and azacytidine, substrates for uridine-cytidine-kinase. Insensitive U937 cells 1 μM RX-3117 resulted in 90% inhibition of RNA synthesis but 100 μM RX-3117 was required in A2780 and CCRF-CEM cells. RX-3117 at IC50 values did not affect the integrity of RNA [1].
In vivo	RX-3117 (p.o.) was examined in 9 different human tumor xenograft models grown subcutaneously in athymic nude mice. In the Colo 205, H460, H69 and CaSki models, gemcitabine treatment resulted in 28%, 30%, 25% and 0% tumor growth inhibition (TGI), respectively. Whereas oral treatment with RX-3117 induced 100%, 78%, 62% and 66% TGI, respectively [2].

Solubility Information

Solubility	DMSO: 50 mg/mL (194.39 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.8877 mL	19.4386 mL	38.8772 mL
5 mM	0.7775 mL	3.8877 mL	7.7754 mL
10 mM	0.3888 mL	1.9439 mL	3.8877 mL
50 mM	0.0778 mL	0.3888 mL	0.7775 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

Peters GJ, et al. Metabolism, mechanism of action and sensitivity profile of fluorocyclopentenylcytosine (RX-3117; TV-1360). Invest New Drugs. 2013 Dec;31(6):1444-57.
Yang MY, et al. A novel cytidine analog, RX-3117, shows potent efficacy in xenograft models, even in tumors that are resistant to gemcitabine. Anticancer Res. 2014 Dec;34(12):6951-9.