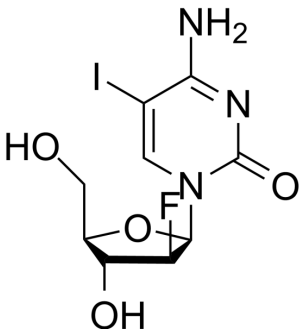
Fiacitabine

Cat. No.:	HY-50735
CAS No.:	69123-90-6
Molecular Formula:	$C_9H_{11}FIN_3O_4$
Molecular Weight:	371.1
Target:	HSV
Pathway:	Anti-infection
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 2 years -20°C 1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 37 mg/mL (99.70 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6947 mL	13.4735 mL	26.9469 mL
	5 mM	0.5389 mL	2.6947 mL	5.3894 mL
	10 mM	0.2695 mL	1.3473 mL	2.6947 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Fiacitabine(NSC 382097; FIAC; FOAC) is a selective inhibitior of DNA replication of herpes simplex virus(HSV) with IC50 values of 2.5 nM and 12.6 nM for HSV1 and HSV2, respectively. IC50 value: 2.5/12.6 nM (HSV1/2) [2]Target: HSVFIAC suppressed by 90% the replication of various strains of herpes simplex virus types 1 and 2 at concentrations of 0.0025 to 0.0126 microM. Cytotoxicity was minimal, as determined by trypan blue dye exclusion with norman Vero, WI-38, and NC-37 cell proliferation; the 50% inhibitory dose was 4 to 10 microM in a 4-day assay. FIAC was active at much lower concentrations than arabinosylcytosine, iododeoxyuridine, and arabinosyladenine. It was slightly more active against herpes simplex virus type 1 than acycloquanosine and slightly more toxic to normal cells. FIAC was about 8,000 times more active against the replication of wild-type herpes simplex virus type 1 than against a mutant strain lacking the expression of virus-specified thymidine kinase [2].

IC_{50} & Target	HSV-1	HSV-2

REFERENCES

[1]. Allaudeen HS, et al. Selective inhibition of DNA replication in herpes simplex virus infected cells by 1-(2'-deoxy-2'-fluoro-beta-D-arabinofuranosyl)-5-iodocytosine. J Biol Chem. 1982 Oct 25;257(20):11879-82.

[2]. Lopez C, et al. 2'-fluoro-5-iodo-aracytosine, a potent and selective anti-herpesvirus agent. Antimicrob Agents Chemother. 1980 May;17(5):803-6.

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