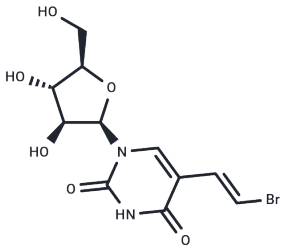
Data Sheet (Cat.No.T16911)

TargetMol

Sorivudine

Chemical Properties



CAS No. : 77181-69-2

Formula: C11H13BrN2O6

Molecular Weight: 349.13

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Sorivudine (BV-araU) has antiviral activity against several viruses including varicella zoster virus, herpes simplex type 1 virus, and Epstein-Barr virus by interfering with viral DNA synthesis.
Targets(IC50)	DNA/RNA Synthesis
In vitro	Sorivudine inhibits strains of HSV-1 and HSV-2 (ID50s (50% inhibitory dose): 0.39 and 0.67 μM, respectively). Sorivudine has antiviral activity against several viruses including varicella-zoster virus, herpes simplex type 1 virus, and Epstein-Barr virus. Sorivudine has in vitro inhibitory activity against the varicella-zoster virus at concentrations of 00001-0.004 mg/ml. These concentrations are over 1000-fold lower than those which are required for the inhibition of VZV replication by acyclovir 3 Sorivudine also inhibits HSV-I replication at concentrations ranging from 0.03-0.1 mg/ml [1][2].
In vivo	Sorivudine has been evaluated in the treatment of HSV-l encephalitis when administered orally to mice. The survival of treated mice is prolonged at dosages in excess of 12.5 mg/kg. A significant decrease in mortality was achieved as well with doses in excess of 50 mg/kg. Sorivudine therapy at dosages as low as 20 mg/kg per day given intramuscularly or 100 mg/kg per day administered orally completely protected against viremia and mortality. There was no evidence of neurotoxicity or abnormalities in hematology or clinical chemistries. Doses as low as 0.2 mg/kg per day were effective; however, breakthrough viremia was noted at lower dosages [2].

Solubility Information

Solubility	DMSO: 125 mg/mL (358.03 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (11.46 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8643 mL	14.3213 mL	28.6426 mL
5 mM	0.5729 mL	2.8643 mL	5.7285 mL
10 mM	0.2864 mL	1.4321 mL	2.8643 mL
50 mM	0.0573 mL	0.2864 mL	0.5729 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Whitley RJ, et al. Sorivudine: a potent inhibitor of varicella zoster virus replication.Adv Exp Med Biol. 1996;394:41-4.

Diasio RB, et al. Sorivudine and 5-fluorouracil; a clinically significant drug-drug interaction due to inhibition of dihydropyrimidine dehydrogenase. Br J Clin Pharmacol. 1998 Jul;46(1):1-4.