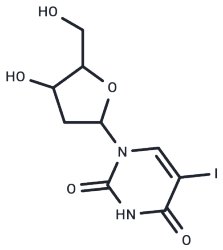
Data Sheet (Cat.No.T0863)

TargetMol

Idoxuridine

Chemical Properties



CAS No. : 54-42-2

Formula: C9H11IN2O5

Molecular Weight: 354.1

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	Idoxuridine (Dendrid) is an analog of DEOXYURIDINE that inhibits viral DNA synthesis. The drug is used as an antiviral agent.
Targets(IC50)	Antifection,HSV,Phosphatase,Virus Protease
In vitro	Idoxuridine is a nucleoside analogue, a modified form of deoxyuridine, similar enough to be incorporated into viral DNA replication, but the iodine atom added to the uracil component blocks base pairing.Idoxuridine is used for topical treatment of herpetic eye infections due to herpes simplex virus (HSV)[2].
Cell Research	The CRFK cells are cultured in 25-cm2 flasks that contained DMEM with 10% FBS. The concentration of idoxuridine is 5, 10, and 50 μM. Cells from 1 control flask and 1 flask containing each drug concentration are examined by use of an inverted microscope to detect morphologic changes and evaluate confluence, and cells are then harvested at 24, 48, and 72 hours. Culture medium is decanted, and the monolayer is rinsed once with PBS solution. Cells are then enzymatically detached with trypsin-EDTA solution. Trypsinization is stopped by the addition of DMEM with 10% FBS, and cells are forcefully pipetted to ensure complete detachment from the flasks. Each flask is then rinsed once with DMEM with 10% FBS, and the eluent is combined with the first cell suspension to ensure collection of as many cells as possible from each flask. Cell-containing medium is centrifuged (300 X g for 6 minutes), and the supernatant is decanted. Cells are then resuspended in a known volume of DMEM and counted on a hemacytometer. Cells cultured in each drug concentration at each time point are counted twice, and the total number of cells in each flask is calculated. (Only for Reference)

Solubility Information

Solubility	DMSO: 250 mg/mL (706.02 mM),Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.65 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*

In vivo Formulation	*vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8241 mL	14.1203 mL	28.2406 mL
5 mM	0.5648 mL	2.8241 mL	5.6481 mL
10 mM	0.2824 mL	1.412 mL	2.8241 mL
50 mM	0.0565 mL	0.2824 mL	0.5648 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

Maggs DJ, et al. Am J Vet Res. 2004, 65(4):399-403.
De Clercq E, et al. Antivir Chem Chemother. 2013, 23(3):93-101.