Idoxuridine

Catalog No.C08113 Batch:C0811303

Product Datasheet

Technical Data

Formula	$C_9H_{11}IN_2O_5$					
Molecular Weight	354.1	**CAS No.**	54-42-2			
Solubility (25°C)*	In vitro	DMSO	71 mg/mL (200.5 mM)			
		Water	Insoluble			
		Ethanol	Insoluble			
	In vivo (Add solvents to the product individually and in order)	Oral Administration	Homogeneous suspension	CMC-NA	≥5mg/ml	Taking the 1 mL working solution as an example, add 5 mg of this product to 1 ml of CMC-Na solution, mix evenly to obtain a homogeneous suspension with a final concentration of 5 mg/ml.

* <1 mg/ml means slightly soluble or insoluble.
* Please note that Capsid Bio tests the solubility of all compounds in-house, and the actual solubility may differ slightly from published values. This is normal and is due to slight batch-to-batch variations.
* Room temperature shipping (Stability testing shows this product can be shipped at 2-8°C for storage purposes.)

Preparing Stock Solutions

Concentration \ Volume / Mass	1 mg	5 mg	10 mg
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	1.4120 mL	2.8241 mL
50 mM	0.0565 mL	0.2824 mL	0.5648 mL

Biological Activity

Description	Idoxuridine (NSC 39661, SKF 14287,5-Iodo-2′-deoxyuridine,5-IUdR,IdUrd) is an antiviral agent for feline herpesvirus type-1 with IC50 of 4.3 μM.
Targets	Feline herpesvirus type-1(FHV-1) [1] 4.3 μM
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.This compound is used for topical treatment of herpetic eye infections due to herpes simplex virus (HSV)[2].

Protocol (from reference)

Cell Assay:[1]

- **Cell lines**
  Cultured Crandell-Reese feline kidney (CRFK) cells and FHV-1 strain 727.
- **Concentrations**
  5, 10, and 50 μM
- **Incubation Time**
  24, 48, and 72 h
- **Method**
  The CRFK cells are cultured in 25-cm2 flasks that contained DMEM with 10% FBS. The concentration of idoxuridine is 5, 10, and 50μM. 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.

References

https://pubmed.ncbi.nlm.nih.gov/15077679/ https://pubmed.ncbi.nlm.nih.gov/23343513/

RETURN POLICY

Capsid Bio's Unconditional Return Policy ensures a smooth online shopping experience for our customers. If you are in any way unsatisfied with your purchase, you may return any item(s) within 7 days of receiving it. In the event of product quality issues, either protocol related or product related problems, you may return any item(s) within 365 days from the original purchase date. Please follow the instructions below when returning products.

SHIPPING & STORAGE

Capsid Bio products are transported at room temperature. If you receive the product at room temperature, please rest assured, the Capsid Bio Quality Inspection Department has conducted experiments to verify that the normal temperature placement of one month will not affect the biological activity of powder products. After collecting, please store the product according to the requirements described in the datasheet. Most Capsid Bio products are stable under the recommended conditions.

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