Product Datasheet

Technical Data

Formula	$C_{10}H_{12}N_4O_3$					
Molecular Weight	236.23	**CAS No.**	69655-05-6			
Solubility (25°C)*	In vitro	DMSO	47 mg/mL (198.95 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

Biological Activity

Description	Didanosine is a reverse transcriptase inhibitor with an IC50 of 0.49 μM.
Targets	Reverse transcriptase [1] 490 nM
In vitro	Didanosine induces cytoplasmic lipid droplet accumulations, increases lactate production and decreases activities of COX (complex IV) and SDH (part of complex II) in cultured human muscle cells. [1] This compound is converted to its active moiety, dideoxyadenosine-5'-triphosphate (ddATP), which inhibits HIV reverse transcriptase and terminates viral DNA growth in the target cell for HIV. [2] It induces dose-dependent decreases in neurite number, length of the longest neurite in each neuron, and total neurite length per neuron in dissociated DRG cell cultures with 3 days treatment. This chemical induces a neurite retraction or neurite loss in a dose-dependent manner in dissociated DRG neurons, suggesting that it may partially contribute to developing peripheral neuropathy. [3] It potentiates the mutagenicity of Zidovudine in the thymidine kinase (TK) gene of cultured human TK6 lymphoblastoid cells. This compound combined with Zidovudine causes a significant increase in micronucleated PCEs and induces a significant increase in Tk mutants, which is associated with loss of the wild-type Tk+ allele. [4] It depletes mitochondrial DNA (mtDNA) in cultured hepatocytes, this mtDNA depletion is associated with an increased in vitro production of lactate. [5]

References

https://pubmed.ncbi.nlm.nih.gov/9168161/ https://pubmed.ncbi.nlm.nih.gov/10651392/ https://pubmed.ncbi.nlm.nih.gov/17619152/

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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.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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