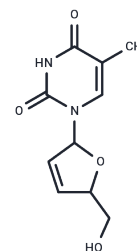


Stavudine

Chemical Properties

CAS No. :	3056-17-5
Formula:	C ₁₀ H ₁₂ N ₂ O ₄
Molecular Weight:	224.21
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Stavudine (BMV-27857), a nucleoside reverse transcriptase inhibitor analog of thymidine, has activity against HIV.
Targets(IC50)	Apoptosis,Nucleoside Antimetabolite/Analog,HIV Protease,NOD-like Receptor (NLR),Reverse Transcriptase,Autophagy
In vitro	In lean mice, Stavudine (500 mg/kg/day) reduces mitochondrial DNA in the liver and muscle, inducing ketoacidosis during fasting periods. In obese mice, Stavudine (500 mg/kg/day) depletes mtDNA in White Adipose Tissue (WAT).
In vivo	Stavudine reduces lipid content and influences the expression of lipid metabolism markers, such as C/EBPα, peroxisome proliferator-activated receptor γ, adipocyte lipid-binding protein 2, fatty acid synthase, and acetyl-CoA carboxylase. In 3T3-F442A cells, Stavudine induces apoptosis and reduces both lipid content and viability in 3T3-L1 adipocytes. Furthermore, in peripheral blood mononuclear cells (PBMC), Stavudine inhibits the production of p24 antigen by HIV-1, with an effective dose range of 0.04 μM to 0.2 μM (ED50 = 0.04 μM-0.2 μM).

Solubility Information

Solubility	DMSO: 50 mg/mL (223.01 mM), H ₂ O: 22.4 mg/mL (100 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.4601 mL	22.3005 mL	44.601 mL
5 mM	0.892 mL	4.4601 mL	8.9202 mL
10 mM	0.446 mL	2.2301 mL	4.4601 mL
50 mM	0.0892 mL	0.446 mL	0.892 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.

Reference

Caron M, et al. AIDS, 2004, 18(16), 2127-2136.

Merrill DP, et al. J Infect Dis, 1996, 173(2), 355-364.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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