

Azaserine

Chemical Properties

CAS No. : 115-02-6

Formula: C₅H₇N₃O₄

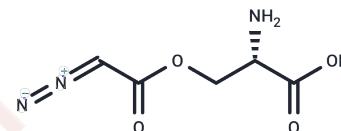
Molecular Weight: 173.13

Keep away from direct sunlight, Store at low temperature

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	Azaserine (CI-337) is a tumor-inhibiting antibiotic isolated from a species of Streptomyces and functions as an inhibitor of glutamine amidotransferase.
Targets(IC50)	Antibacterial, Antibiotic, DNA/RNA Synthesis
In vitro	Azaserine inhibits the hexosamine biosynthetic pathway, which shunts excessive intracellular glucose into the biosynthesis of UDP-N-acetylglucosamine and the formation of O-linked glycoproteins [2]. Azaserine (25 μM) inhibits the glutamine-dependent amidotransferases involved in nucleotide biosynthesis, phosphoribosylformylglycinamide synthetase, and glucosamine-6-phosphate isomerase [3].

Solubility Information

Solubility	H ₂ O: 67.5 mg/mL (389.88 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.776 mL	28.880 mL	57.7601 mL
5 mM	1.1552 mL	5.776 mL	11.552 mL
10 mM	0.5776 mL	2.888 mL	5.776 mL
50 mM	0.1155 mL	0.5776 mL	1.1552 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

Wise DR, et al. Glutamine addiction: a new therapeutic target in cancer. *Trends Biochem Sci.* 2010 Aug;35(8):427-33.

Rajapakse AG, et al. The hexosamine biosynthesis inhibitor azaserine prevents endothelial inflammation and dysfunction under hyperglycemic condition through antioxidant effects. *Am J Physiol Heart Circ Physiol.* 2009 Mar; 296(3):H815-22.

Lyons SD, et al. Cytotoxic mechanisms of glutamine antagonists in mouse L1210 leukemia. *J Biol Chem.* 1990 Jul 5; 265(19):11377-81.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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