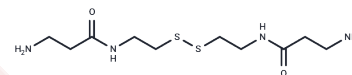


Alethine

Chemical Properties

CAS No. : 646-08-2
 Formula: C₁₀H₂₂N₄O₂S₂
 Molecular Weight: 294.44
 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	Alethine (β -Alethine) is a small molecule compound with antitumour activity and is used to treat tumours and infections. The alethine-induced up-regulation of TNF α increases the cytotoxicity of T cells.
Targets(IC50)	Apoptosis,TNF
In vitro	Alethine (Beta-alethine) (10 ng/ml) (a) adapts murine liver cells to culture (53 colonies/10(6) cells versus none in controls), (b) delays aging of human IMR-90 fetal lung fibroblasts (102 population doubling levels versus 47 in controls, producing 3 x 10 (16) greater biomass), and (c) markedly stimulates antibody-producing plaque-forming cells from murine splenocytes (16,875/10(6) cells versus 55/10(6) cells in controls) or human peripheral blood leukocytes (1826/10(6) cells versus 0/10(6) cells in controls).[1]
In vivo	Alethine (beta-alethine) (1 ng/kg to 100 micrograms/kg) successfully treat NS-1 myeloma in a syngeneic murine tumor model (NS-1 myeloma) when early interventions . Although there are indications in this model that beta-alethine is also effective when intervention is late, beta-alethine is ineffective in an allogeneic murine melanoma model (Cloudman S-91 melanoma).[1]

Solubility Information

Solubility	DMSO: < 1 mg/mL (insoluble or slightly soluble),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	3.3963 mL	16.9814 mL	33.9628 mL
5 mM	0.6793 mL	3.3963 mL	6.7926 mL
10 mM	0.3396 mL	1.6981 mL	3.3963 mL
50 mM	0.0679 mL	0.3396 mL	0.6793 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

Knight GD, et al. Seemingly diverse activities of beta-alethine. *Cancer Res.* 1994;54(21):5636-5642.

Dunn TM, et al. Increased T cell cytotoxicity by Betathine-induced upregulation of TNFalpha. *Int J Immunopharmacol.* 2000;22(3):213-327.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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