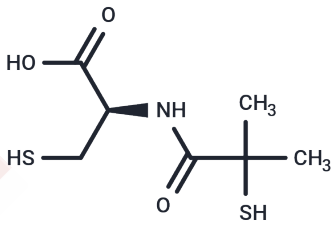
Data Sheet (Cat.No.T21334)

TargetMol

Bucillamine

Chemical Properties



CAS No. : 65002-17-7

Formula: C7H13NO3S2

Molecular Weight: 223.31

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	Bucillamine (DE019) protects against Ischemia/reperfusion injury in high-risk organ transplants and inhibits the production of VEGF. Bucillamine is an orally active sulfhydryl donor and antioxidant with antirheumatic and antiangiogenic properties. Bucillamine can be used for studies about choroidal neovascularization and rheumatoid arthritis.
Targets(IC50)	Antioxidant,VEGFR
In vivo	In rats subjected to liver transplants, Bucillamine significantly enhances survival and protected against hepatic injury[2]. Subconjunctival injection of Bucillamine significantly reduces the leakage and size of experimental CNV in rats[3].

Solubility Information

Solubility	DMSO: 252.5 mg/mL (1130.72 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 10 mg/mL (44.78 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (44.78 mM),Solution. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.4781 mL	22.3904 mL	44.7808 mL
5 mM	0.8956 mL	4.4781 mL	8.9562 mL
10 mM	0.4478 mL	2.239 mL	4.4781 mL
50 mM	0.0896 mL	0.4478 mL	0.8956 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

Kim SJ, et al. Bucillamine prevents cisplatin-induced ototoxicity through induction of glutathione and antioxidant genes. Exp Mol Med. 2015 Feb 20;47:e142.
Amersi F, et al. Bucillamine, a thiol antioxidant, prevents transplantation-associated reperfusion injury. Proc Natl Acad Sci U S A. 2002 Jun 25;99(13):8915-20.
Yanagi Y, et al. Subconjunctival administration of bucillamine suppresses choroidal neovascularization in rat. Invest Ophthalmol Vis Sci. 2002 Nov;43(11):3495-9.
Manabe S, et al. Bucillamine-induced membranous nephropathy with crescent formation in a patient with rheumatoid arthritis: case report and literature review. Case Rep Nephrol Dial. 2014 Oct 29;5(1):30-8.