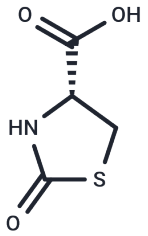
Data Sheet (Cat.No.T5365)

TargetMol

Oxothiazolidinecarboxylic acid

Chemical Properties

CAS No. :	19771-63-2
Formula:	C4H5NO3S
Molecular Weight:	147.15
Storage:	Keep away from direct sunlight,Keep away from moisture 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	Oxothiazolidinecarboxylic acid (Procysteine) is a precursor to glutathione (GSH) which is an important antioxidant in plants, animals, and fungi.
Targets(IC50)	Others,Antioxidant
In vivo	Procysteine stimulated gene expression of anabolic factors such as insulin-like growth factor-1, ciliary neurotrophic factor, and cardiotrophin-1[2]. Procysteine supplementation eliminated the aging-associated differences in hepatic GSH and GSH/GSSG ratio. The nSMase activity and ceramide increased in the procysteine-fed mice irrespective of their age. The procysteine-fed aged mice also exhibited hepatic steatosis and triacylglyceride accumulation [3].

Solubility Information

Solubility	DMSO: 55 mg/mL (373.77 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (13.59 mM),Sonication is recommended. *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	6.7958 mL	33.9789 mL	67.9579 mL
5 mM	1.3592 mL	6.7958 mL	13.5916 mL
10 mM	0.6796 mL	3.3979 mL	6.7958 mL
50 mM	0.1359 mL	0.6796 mL	1.3592 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

Meister A, Intracellular cysteine and glutathione delivery systems. J Am Coll Nutr. 1986;5(2):137-51.
Otis JS, et al. Procysteine stimulates expression of key anabolic factors and reduces plantaris atrophy in alcohol-fed rats. Alcohol Clin Exp Res. 2009 Aug;33(8):1450-9.
Deevska G, et al. Effect of procysteine on aging-associated changes in hepatic GSH and SMase: evidence for transcriptional regulation of smpd3. J Lipid Res. 2014 Oct;55(10):2041-52.

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