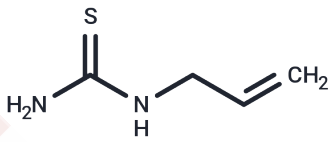
Data Sheet (Cat.No.T0418)

TargetMol

Allylthiourea

Chemical Properties



CAS No. : 109-57-9

Formula: C4H8N2S

Molecular Weight: 116.18

Storage: 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	Allylthiourea (Thiosinamine), a metabolic inhibitor, specifically suppresses ammonia oxidation.
Targets(IC50)	MAO,Reactive Oxygen Species,ROS
In vivo	At a concentration of 1 μM, allylthiourea inhibits 80% of ammonia oxidation; selective inhibition of ammonia oxidation occurs at concentrations ranging from 8-80 μM; at a concentration of 86 μM, allylthiourea achieves complete inhibition of ammonia oxidation.

Solubility Information

Solubility	DMSO: 55 mg/mL (473.4 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: 22 mg/mL (189.36 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 (17.21 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	8.6073 mL	43.0367 mL	86.0733 mL
5 mM	1.7215 mL	8.6073 mL	17.2147 mL
10 mM	0.8607 mL	4.3037 mL	8.6073 mL
50 mM	0.1721 mL	0.8607 mL	1.7215 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

Ginestet P, et al. Appl Environ Microbiol, 1998, 64(6), 2266-2268.
Bédard C, et al. Microbiol Rev, 1989, 53(1), 68-8
Yu Y, et al. Appl Microbiol Biotechnol, 2009, 82(2), 333-339.

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