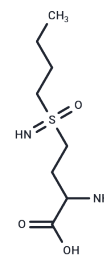


## DL-Buthionine-(S,R)-sulfoximine

## Chemical Properties

CAS No. :	5072-26-4
Formula:	C <sub>8</sub> H <sub>18</sub> N <sub>2</sub> O <sub>3</sub> S
Molecular Weight:	222.31
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	DL-Buthionine-(S,R)-sulfoximine (Buthionine sulfoximine) is an inhibitor of $\gamma$ -glutamylcysteine synthetase used for the treatment of solid tumors.
Targets(IC50)	Ferroptosis
In vivo	D,L-Buthionine-(S,R)-sulfoximine (32 mmol/kg, i.p.) reduces renal glutathione in mice without inducing abnormal behavior or convulsions. It has antiparasitic activity, eliminating <i>T. brucei</i> from the bloodstream of infected mice via depletion of intratrypanosomal glutathione and induction of oxidative stress at a dose of 4 mmol/kg [1].

## Solubility Information

Solubility	H <sub>2</sub> O: 31.25 mg/mL (140.57 mM), Sonication is recommended. DMSO: Insoluble, ( $< 1$ mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.4982 mL	22.4911 mL	44.9822 mL
5 mM	0.8996 mL	4.4982 mL	8.9964 mL
10 mM	0.4498 mL	2.2491 mL	4.4982 mL
50 mM	0.090 mL	0.4498 mL	0.8996 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

Arrick, B. A . Inhibition of glutathione synthesis as a chemotherapeutic strategy for trypanosomiasis[J]. Journal of Experimental Medicine, 1981, 153(3):720-725.

Vanhoefer U , Cao S , Minderman H , et al. d,l-buthionine-(S,R)-sulfoximine potentiates in vivo the therapeutic efficacy of doxorubicin against multidrug resistance protein-expressing tumors.[J]. Clinical Cancer Research An Official Journal of the American Association for Cancer Research, 1996, 2(12):1961.

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