

Cystamine dihydrochloride

Chemical Properties

CAS No. : 56-17-7

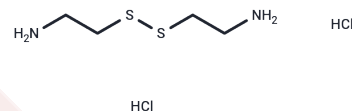
Formula: C₄H₁₄Cl₂N₂S₂

Molecular Weight: 225.19

Keep away from moisture

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	Cystamine dihydrochloride is a radiation-protective agent. It also protects against carbon tetrachloride liver damage.
Targets(IC50)	Apoptosis,Others,Glutaminase,Caspase

Solubility Information

Solubility	DMSO: 50 mg/mL (222.03 mM),Sonication is recommended. H2O: 50 mg/mL (222.03 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 (8.88 mM),Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.4407 mL	22.2035 mL	44.4069 mL
5 mM	0.8881 mL	4.4407 mL	8.8814 mL
10 mM	0.4441 mL	2.2203 mL	4.4407 mL
50 mM	0.0888 mL	0.4441 mL	0.8881 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

- Roncoroni L, Elli L, Braidotti P, et al. Transglutaminase 2 Mediates the Cytotoxicity of Resveratrol in a Human Cholangiocarcinoma and Gallbladder Cancer Cell Lines. *Nutr Cancer*. 2018 May 14:1-9.
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- Zhou Y, Hu Y, Sun W, Lu S, Cai C, Peng C, Yu J, Popovtzer R, Shen M, Shi X. Radiotherapy-Sensitized Tumor Photothermal Ablation Using γ -Polyglutamic Acid Nanogels Loaded with Polypyrrole. *Biomacromolecules*. 2018 Apr 6. doi: 10.1021/acs.biomac.8b00184. [Epub ahead of print] PubMed PMID: 29601720.
- Fraser-Pitt DJ, Mercer DK, Smith D, et al. Cysteamine, an Endogenous Amino-thiol, and Cystamine, the Disulfide Product of Oxidation, Increase *Pseudomonas aeruginosa* Sensitivity to Reactive Oxygen and Nitrogen Species and Potentiate Therapeutic Antibiotics against Bacterial Infection. *Infect Immun*. 2018 May 22;86(6). pii: e00947-17.

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