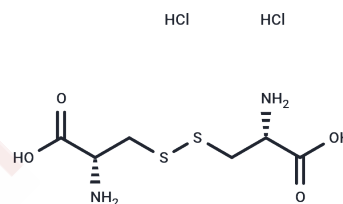


## L-Cystine dihydrochloride

## Chemical Properties

CAS No. :	30925-07-6
Formula:	C <sub>6</sub> H <sub>14</sub> Cl <sub>2</sub> N <sub>2</sub> O <sub>4</sub> S <sub>2</sub>
Molecular Weight:	313.22
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	L-Cystine dihydrochloride is an Nrf2 inducer with whitening and anti-dark spot effects. L-Cystine dihydrochloride has cytoprotective effects in cells, and is often added to various fungal cultures as a carbon source.
Targets(IC50)	Apoptosis, Ferroptosis, Nrf2, Endogenous Metabolite, ROS

## Solubility Information

Solubility	H <sub>2</sub> O: < 1 mg/mL (insoluble) DMSO: 16.67 mg/mL (53.22 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 1 mg/mL (3.19 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	3.1926 mL	15.9632 mL	31.9264 mL
5 mM	0.6385 mL	3.1926 mL	6.3853 mL
10 mM	0.3193 mL	1.5963 mL	3.1926 mL
50 mM	0.0639 mL	0.3193 mL	0.6385 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

Pader I, et al. Thioredoxin-related protein of 14 kDa is an efficient L-cystine reductase and S-denitrosylase. Proc Natl Acad Sci U S A. 2014 May 13;111(19):6964-9.

Xiaojun Lian. Serum-free human pluripotent stem cell culture medium. Patent WO2021094826 A1.

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