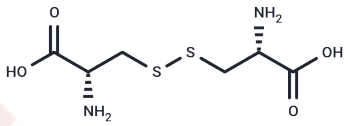
Data Sheet (Cat.No.T2O2733)

TargetMol

L-Cystine

Chemical Properties



CAS No. :	56-89-3
Formula:	C6H12N2O4S2
Molecular Weight:	240.3
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 (Cystine Acid) is not considered one of the 20 amino acids, L-Cystine (Cystine Acid) is a sulfur-containing derivative obtained from oxidation of cysteine amino acid thiol side chains. It functions as an antioxidant and protects tissues against radiation and pollution, slowing the aging process. It also aids protein synthesis. L-Cystine (Cystine Acid) is abundant in many proteins of skeletal tissues and skin, and found in insulin and digestive enzymes chromotrypsinogen A, papain, and trypsinogen.
Targets(IC50)	Antioxidant,Ferroptosis,Reactive Oxygen Species,Nrf2,Endogenous Metabolite,ROS,ROS Kinase

Solubility Information

Solubility	0.1 M NaOH: 8.17 mg/mL (34.00 mM),Sonication is recommended. 0.1M NaOH: 7.14 mg/mL (29.71 mM) 0.1 M HCl: 2.50 mg/mL (10.40 mM),Sonication and heating are recommended. DMSO: Insoluble (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.1615 mL	20.8073 mL	41.6146 mL
5 mM	0.8323 mL	4.1615 mL	8.3229 mL
10 mM	0.4161 mL	2.0807 mL	4.1615 mL
50 mM	0.0832 mL	0.4161 mL	0.8323 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

Ohtsu I, et al. Uptake of L-cystine via an ABC transporter contributes defense of oxidative stress in the L-cystine export-dependent manner in Escherichia coli. PLoS One. 2015 Apr 2;10(3):e0120619.
Li L, Gu X, Wang J, et al. Amino Acid Detection with Bare Eyes Based on Two Different Concentrations of Iodides as Sensor Receptors. Food Analytical Methods. 2021: 1-9
Li L, Gu X, Wang J, et al. Amino Acid Detection with Bare Eyes Based on Two Different Concentrations of Iodides as Sensor Receptors[J]. Food Analytical Methods. 2021: 1-9