

L-Cystine

Chemical Properties

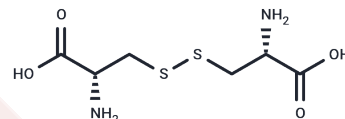
CAS No. : 56-89-3

Formula: C₆H₁₂N₂O₄S₂

Molecular Weight: 240.3

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

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|---------------|---|
| 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,Endogenous Metabolite |

Solubility Information

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| Solubility | 0.1 M HCl: 2.5 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.

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

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