

L-Cystathionine

Chemical Properties

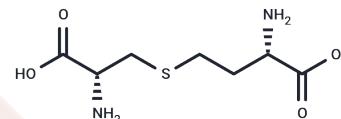
CAS No. : 56-88-2

Formula: C7H14N2O4S

Molecular Weight: 222.26

Storage: Store at low temperature, Store under nitrogen
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-Cystathionine (Cystathionine, L-) is a key nonprotein amino acid related to metabolic conditions of sulfur-containing amino acids. L-Cystathionine can be used in studies about cardiovascular protection.
Targets(IC50)	Apoptosis, Endogenous Metabolite
In vitro	L-Cystathionine protects against homocysteine-induced mitochondria-dependent apoptosis of vascular endothelial cells. L-Cystathionine reduces mitochondrial superoxide anion production and Bax expression and inhibits its translocation to mitochondria, increases mitochondrial membrane potential, inhibits the opening of mitochondrial permeability transition pores, inhibits cytochrome c leakage from mitochondria into the cytoplasm, and downregulates caspase-9 and caspase-3 activity [1].

Solubility Information

Solubility	H ₂ O: 1.56 mg/mL (7.02 mM), Sonication and heating are recommended. DMSO: < 1 mg/mL (insoluble), Sonication is recommended. 1M NaOH: 52 mg/mL (233.96 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.4992 mL	22.4962 mL	44.9924 mL
5 mM	0.8998 mL	4.4992 mL	8.9985 mL
10 mM	0.4499 mL	2.2496 mL	4.4992 mL
50 mM	0.090 mL	0.4499 mL	0.8998 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

Amino Y, et al. Synthesis and evaluation of L-cystathionine as a standard for amino acid analysis. *Biosci Biotechnol Biochem.* 2017 Jan;81(1):95-101.

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