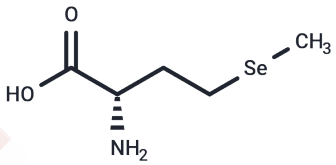
Data Sheet (Cat.No.T5372)

TargetMol

L-SelenoMethionine

Chemical Properties



CAS No. : 3211-76-5

Formula: C5H11NO2Se

Molecular Weight: 196.11

Storage: Store at low temperature
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-SelenoMethionine (L-(+)-Selenomethionine) is a naturally occurring amino acid. It promotes cell cycle progression and elevates the expression of the antioxidant enzymes thioredoxin reductase, glutathione reductase.
Targets(IC50)	Apoptosis,Amino Acids and Derivatives,Endogenous Metabolite
In vitro	At 5 μM, L-selenomethionine selectively induces apoptosis in LNCaP prostate cancer cells without affecting non-cancerous cells [1]. c-Myc, cyclin C, proliferating cell nuclear antigen, cyclin-dependent kinase (cdk)1, cdk2, cdk4, cyclin B and cyclin D2 mRNA levels were lower in selenium-deficient cells than in the cells supplemented with 0.25 micromol/L selenomethionine. The phosphorylation state of total cellular protein was higher (57%) in selenium-supplemented cells than in selenium-deficient cells [2].

Solubility Information

Solubility	DMSO: < 1 mg/mL (insoluble or slightly soluble),Sonication is recommended. H2O: 27.5 mg/mL (140.23 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.0992 mL	25.4959 mL	50.9918 mL
5 mM	1.0198 mL	5.0992 mL	10.1984 mL
10 mM	0.5099 mL	2.5496 mL	5.0992 mL
50 mM	0.102 mL	0.5099 mL	1.0198 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

Stewart J, et al. Effects of selenomethionine on the gene expression profile of cloned human prostate cancer cells representing a phenotypic continuum of cancer progression. Nutr Cancer. 2008;60(6):826-36.
Zeng H. Selenite and selenomethionine promote HL-60 cell cycle progression. J Nutr. 2002 Apr;132(4):674-9.