Data Sheet (Cat.No.T7727)

TargetMol
A DRUG SCREENING EXPERT

Se-Methylselenocysteine

Chemical Properties

CAS No.:	26046-90-2
Formula:	C4H9NO2Se
Molecular Weight:	182.08
Appearance:	N/A
Storage:	0-4℃ for short term (days to weeks), or -20℃ for long term (months).

Biological Description

Description	Se-Methylselenocysteine is a drug potentially for the treatment of solid tumors. Se-Methylselenocysteine exerts pro-apoptosis effects through increasing Cx43 expression, which in turn down-regulates Bcl-2 and up-regulates bad expression. Se-methylselenocysteine offers selective protection against organ-specific toxicity induced by clinically active agents and enhances further antitumor activity, resulting in an improved therapeutic index.

Solubility Information

Solubility	DMSO: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.492 mL	27.460 mL	54.921 mL
5 mM	1.098 mL	5.492 mL	10.984 mL
10 mM	0.549 mL	2.746 mL	5.492 mL
50 mM	0.110 mL	0.549 mL	1.098 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Yao Z, Zhang Y, Li H, Deng Z, Zhang X. Synergistic effect of Se-methylselenocysteine and vitamin E in ameliorating the acute ethanol-induced oxidative damage in rat. J Trace Elem Med Biol. 2015 Jan;29:182-7. doi: 10.1016/j.jtemb.2014.08.004. PubMed PMID: 25213679.

2. Yang H, Jia X. Safety evaluation of Se-methylselenocysteine as nutritional selenium supplement: acute toxicity, genotoxicity and subchronic toxicity. Regul Toxicol Pharmacol. 2014 Dec;70(3):720-7. doi: 10.1016/j.yrtph.2014.10.014. PubMed PMID: 25444999.

3. Avila FW, Yang Y, Faquin V, Ramos SJ, Guilherme LR, Thannhauser TW, Li L. Impact of selenium supply on Se-methylselenocysteine and glucosinolate accumulation in selenium-biofortified Brassica sprouts. Food Chem. 2014 Dec 15;165:578-86. doi: 10.1016/j.foodchem.2014.05.134. PubMed PMID: 25038715.

4. Cao S, Durrani FA, Tóth K, Rustum YM. Se-methylselenocysteine offers selective protection against toxicity and potentiates the antitumour activity of anticancer drugs in preclinical animal models. Br J Cancer. 2014 Apr 2;110(7):1733-43. doi: 10.1038/bjc.2014.85. PubMed PMID: 24619073; PubMed Central PMCID: PMC3974093.

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