Data Sheet (Cat.No.T74414L)

TargetMol

S-Allylmercaptocysteine HCl

Chemical Properties

CAS No. :

Formula: C6H12ClNO2S2

Molecular Weight: 229.74

Storage: Keep away from moisture
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	S-Allylmercaptocysteine HCl is an organosulfur compound isolated from aged garlic with anti-inflammatory, antioxidant, anticancer, and antitumor activities.S-Allylmercaptocysteine HCl inhibits inflammation in COPD and targets Nrf2 in osteoarthritis therapy through the NOX4/NF-kappaB pathway. Targeting Nrf2.
Targets(IC50)	Antioxidant
In vitro	S-Allylmercaptocysteine HCl induced apoptosis in SW620, SW480, and Caco-2 cells, and activated caspase 3 and cleaved PARP1 were found in cells treated with S-Allylmercaptocysteine HCl, whereas they were not found in untreated control cells activated PARP1 and caspase 3. [1] S-Allylmercaptocysteine HCl attenuated cisplatin-induced nephrotoxicity by inhibiting apoptosis, oxidative stress and inflammation. [2]
In vivo	Oral administration of 25 and 50 mg/kg S-Allylmercaptocysteine HCl ,significantly ameliorated the pathology of BLM-induced pulmonary fibrosis in mice, showing antifibrotic effects by increasing antioxidants such as heme oxygenase-1 (HO-1), glutathione (GSH) and superoxide dismutase (SOD), and decreasing hydroxyproline (HYP). S-Allylmercaptocysteine HCl reduced inflammatory cell infiltration in bronchoalveolar lavage fluid (BALF) and decreased pro-inflammatory cytokine levels in BALF.[3]

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.3527 mL	21.7637 mL	43.5275 mL
5 mM	0.8705 mL	4.3527 mL	8.7055 mL
10 mM	0.4353 mL	2.1764 mL	4.3527 mL
50 mM	0.0871 mL	0.4353 mL	0.8705 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

Liang D, et al. S-allylmercaptocysteine effectively inhibits the proliferation of colorectal cancer cells under in vitro and in vivo conditions. Cancer Lett. 2011 Nov 1;310(1):69-76.
https://pubmed.ncbi.nlm.nih.gov/21794975/
Li C, et al. S-Allylmercaptocysteine attenuates Bleomycin-induced pulmonary fibrosis in mice via suppressing TGF-β1/Smad and oxidative stress pathways. Int Immunopharmacol. 2020 Feb;79:106110.