

S-Allylmercaptocysteine HCl

Chemical Properties

CAS No. :

Formula:

Molecular Weight:

Keep away from moisture

Storage:

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]

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- β 1/Smad and oxidative stress pathways. *Int Immunopharmacol.* 2020 Feb;79:106110.

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