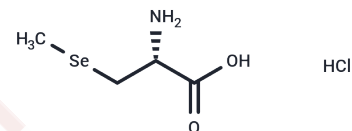


Se-Methylselenocysteine hydrochloride

Chemical Properties

CAS No. : 863394-07-4
 Formula: C₄H₁₀ClNO₂Se
 Molecular Weight: 218.54
 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	Se-Methylselenocysteine hydrochloride, a precursor to Methylselenol, exhibits significant cancer chemopreventive and antioxidant activities. It is orally bioavailable and promotes apoptosis [1] [2].
Targets(IC50)	Apoptosis, Beta-Secretase, Endogenous Metabolite
In vitro	Se-Methylselenocysteine hydrochloride at concentrations of 100-400 μM over a period of three days induces apoptosis in SKOV-33 cells [1]. The same compound also triggers caspase-3 mediated cell apoptosis under these conditions [1].
In vivo	Se-Methylselenocysteine hydrochloride (0.2 mg/mouse; oral administration; once daily for 14 days) enhanced the antitumor activity of CDDP and cyclophosphamide in nude mice harboring human FaDu and A253 head and neck heterografts [2]. In Alzheimer's disease (AD) mouse models, consumption of Se-Methylselenocysteine hydrochloride in their drinking water (0.75 mg/kg body weight daily) for ten months reduced oxidative stress and neuroinflammation, modulated the distribution and levels of various metal ions, and decreased amyloid-beta peptide (Aβ) formation by inhibiting the expression of its precursor protein APP and β-secretase (BACE1). Additionally, it attenuated hyperphosphorylation of tau and the formation of neurofibrillary tangles (NFT) by enhancing protein phosphatase 2A (PP2A) activity, thereby preserving synaptic proteins and neuronal function, ultimately improving spatial learning and memory deficits in the AD mouse models [3].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.5758 mL	22.8791 mL	45.7582 mL
5 mM	0.9152 mL	4.5758 mL	9.1516 mL
10 mM	0.4576 mL	2.2879 mL	4.5758 mL
50 mM	0.0915 mL	0.4576 mL	0.9152 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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