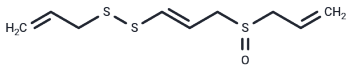
Data Sheet (Cat.No.T36448)

TargetMol

(E)-Ajoene

Chemical Properties



CAS No. :	92284-99-6
Formula:	C9H14OS3
Molecular Weight:	234.39
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	(E)-Ajoene is a disulfide that has been found inA. sativumand has diverse biological activities.1,2,3,4It is active against Gram-positive and Gram-negative bacteria (MICs = 10-250 and 150->500 μg/ml, respectively) and fungi (MICs = 15-50 μg/ml).1(E)-Ajoene inhibits proliferation of a variety of cancer cells, including MDA-MB-231 breast, HeLa cervical, and WHCO1 esophageal cancer cells (IC50s = 18.6, 61, and 39.2 μM, respectively).2It also inhibits human glutathione reductase andT. cruzitrypanothione reductase when used at a concentration of 200 μM.3(E)-Ajoene (25 mg/kg) is neuroprotective in a gerbil model of ischemia-reperfusion injury, reducing reactive astrocytosis and microgliosis in the hippocampal CA1 region.4
Targets(IC50)	Apoptosis,Others,Antifungal

Solubility Information

Solubility	Methanol: Slightly soluble Ethyl Acetate: Slightly soluble Chloroform: Slightly soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.2664 mL	21.332 mL	42.6639 mL
5 mM	0.8533 mL	4.2664 mL	8.5328 mL
10 mM	0.4266 mL	2.1332 mL	4.2664 mL
50 mM	0.0853 mL	0.4266 mL	0.8533 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

Yoshida, H., Iwata, N., Katsuzaki, H., et al.Antimicrobial activity of a compound isolated from an oil-macerated garlic extractBiosci. Biotechnol. Biochem.62(5)1014-1017(1998)
Kaschula, C.H., Hunter, R., Hassan, H.T., et al.Anti-proliferation activity of synthetic ajoene analogues on cancer cell-linesAnticancer Agents Med. Chem.11(3)260-266(2011)
Gallwitz, H., Bonse, S., Martinez-Cruz, A., et al.Ajoene is an inhibitor and subversive substrate of human glutathione reductase and Trypanosoma cruzi trypanothione reductase: Crystallographic, kinetic, and spectroscopic studiesJ. Med. Chem.42(3)364-372(1999)
Yoo, D.Y., Kim, W., Nam, S.M., et al.Neuroprotective effects of Z-ajoene, an organosulfur compound derived from oil-macerated garlic, in the gerbil hippocampal CA1 region after transient forebrain ischemiaFood Chem. Toxicol. 721-7(2014)

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