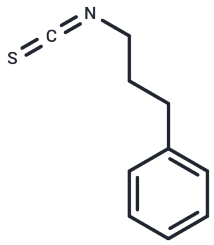
Data Sheet (Cat.No.T40253)

TargetMol

3-Phenylpropyl isothiocyanate

Chemical Properties



CAS No. : 2627-27-2

Formula: C10H11NS

Molecular Weight: 177.27

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	3-Phenylpropyl isothiocyanate exhibits a potent inhibitory effect on N-nitrosomethyl-benzylamine (NMBA) tumorigenesis, thereby displaying strong chemopreventive properties [1] [2].
Targets(IC50)	Others
In vivo	3-Phenylpropyl isothiocyanate (5, 1, or 0.2 μmol; gavage; A/J mice; daily for 4 consecutive days prior to administration of 10 μmol of NNK by i.p. injection) effectively inhibits NNK-induced lung tumors. In vivo, 3-Phenylpropyl isothiocyanate decreases lung tumor formation induced by benzo[a]pyrene and NNK [3].

Solubility Information

Solubility	DMSO: 50 mg/mL (282.06 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.6411 mL	28.2056 mL	56.4111 mL
5 mM	1.1282 mL	5.6411 mL	11.2822 mL
10 mM	0.5641 mL	2.8206 mL	5.6411 mL
50 mM	0.1128 mL	0.5641 mL	1.1282 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

Morse MA, et al. Structure-activity relationships for inhibition of 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone lung tumorigenesis by arylalkyl isothiocyanates in A/J mice. Cancer Res. 1991;51(7):1846-1850.
Nishikawa A, et al. Chemopreventive effects of 3-phenylpropyl isothiocyanate on hamster lung tumorigenesis initiated with N-nitrosobis(2-oxopropyl)amine. Jpn J Cancer Res. 1996;87(2):122-126.
Stephen S Hecht, et al. Inhibition of lung tumorigenesis in A/J mice by N-acetyl-S-(N-2-phenethylthiocarbamoyl)-L-cysteine and myo-inositol, individually and in combination. Carcinogenesis.2002 Sep;23(9):1455-61.

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