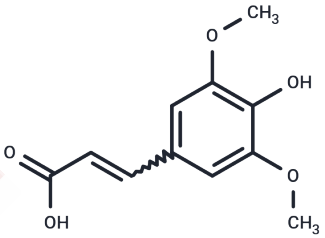
Data Sheet (Cat.No.T3753)

TargetMol

Sinapinic Acid

Chemical Properties



CAS No. : 530-59-6

Formula: C11H12O5

Molecular Weight: 224.21

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	Sinapinic Acid (Synapoic acid) protects the rat liver from CCl4-induced inflammation, most likely by acting as a free radical scavenger and modulator of NF-κB p65 activation and proinflammatory cytokine expression. Sinapic acid with antioxidant role protects cardiac cells and its functions from I/R induced oxidative stress. Sinapic acid is a potentially useful agent for the protection against liver fibrosis and cirrhosis. Sinapic acid prevents the alterations in the levels of lipids and lipoproteins by virtue of its anti-lipidaemic effect in isoproterenol induced myocardial infarcted rats. Sinapic acid ameliorates hyperglycemia through PLC-PKC signals to enhance the glucose utilization in diabetic rats.
Targets(IC50)	Apoptosis,RAAS,Reactive Oxygen Species,HDAC,Angiotensin-converting Enzyme (ACE), ROS

Solubility Information

Solubility	Chloroform, Dichloromethane, Ethyl Acetate, Acetone, etc.: Soluble, H2O: < 1 mg/mL (insoluble or slightly soluble) DMSO: 250 mg/mL (1115.03 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (8.92 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.4601 mL	22.3005 mL	44.601 mL
5 mM	0.892 mL	4.4601 mL	8.9202 mL
10 mM	0.446 mL	2.2301 mL	4.4601 mL
50 mM	0.0892 mL	0.446 mL	0.892 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

Cherng YG,et al.Antihyperglycemic action of sinapic acid in diabetic rats. 2013 Dec 11;61(49):12053-9.
Lan H, Dong Z W, Zhang M Y, et al.Sinapic acid modulates oxidative stress and metabolic disturbances to attenuate ovarian fibrosis in letrozole-induced polycystic ovary syndrome SD rats.Food Science & Nutrition.2024
Shin DS,et al.Effect of sinapic acid against carbon tetrachloride-induced acute hepatic injury in rats. 2013 May;36 (5):626-33.