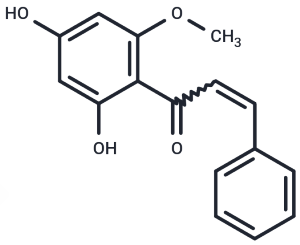
Data Sheet (Cat.No.T66078)

TargetMol

Cardamonin

Chemical Properties



CAS No. : 18956-16-6

Formula: C16H14O4

Molecular Weight: 270.28

Storage: Keep away from moisture,Keep away from direct sunlight,Store at low temperature
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	Cardamonin (Cardamomin) is a chalcone isolated from Alpiniae katsumadai. It has anticancer, anti-inflammatory, antimicrobial, antioxidant and anti-diabetic activities. It can inhibit mTOR, NF-κB, Akt, STAT3, Wnt/β-catenin and COX-2, inhibit the growth of breast cancer, and can be used to study acute kidney injury and chronic renal fibrosis.
Targets(IC50)	Apoptosis,Bcl-2 Family,Antioxidant,NF-κB,Akt,STAT,COX,mTOR,TRP/TRPV Channel, Wnt/beta-catenin
In vitro	The cell viabilities of H9C2 and HL-1 treated with different concentrations of Cardamonin (0, 1.5, 3.125, 6.25, 12.5, 25, 50 and 100 μM) for 24h were not remarkably changed, suggesting that Cardamonin under the tested doses showed no significant cytotoxicity to cells. [1]
In vivo	The male C57BL/6J mice (8 weeks old, 20-22g). The Cardamonin treatment group (DOX+ Cardamonin) was pretreated with Cardamonin (20, 40 or 80mg/kg/day) by gavage, and mice were then intraperitoneal injected with DOX. Cardamonin does-dependently increased the body weight of mice challenged with DOX. We also found that the ratio of heart weight to body weight was markedly increased by DOX, which was, however, decreased by Cardamonin treatment in a dose-dependent manner. [1]

Solubility Information

Solubility	DMSO: 250 mg/mL (924.97 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: 10 mg/mL (37 mM),Solution. 10% DMSO+90% Saline: < 10 mg/mL (37 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. *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	3.6999 mL	18.4993 mL	36.9987 mL
5 mM	0.740 mL	3.6999 mL	7.3997 mL
10 mM	0.370 mL	1.8499 mL	3.6999 mL
50 mM	0.074 mL	0.370 mL	0.740 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

Qi W, et al. Cardamonin protects against doxorubicin-induced cardiotoxicity in mice by restraining oxidative stress and inflammation associated with Nrf2 signaling. Biomed Pharmacother. 2020 Feb;122:109547.
Li G, Zhu L, Guo M, et al.Characterisation of forkhead box protein A3 as a key transcription factor for hepatocyte regeneration.JHEP Reports.2023: 100906.