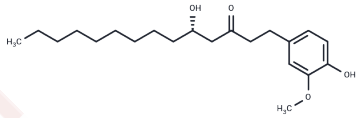
Data Sheet (Cat.No.T3908)

TargetMol

10-Gingerol

Chemical Properties



CAS No. : 23513-15-7

Formula: C21H34O4

Molecular Weight: 350.49

Storage: Store at low temperature,Keep away from direct sunlight
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	10-Gingerol-induced apoptosis was accompanied by phosphorylation of the mitogen-activated protein kinase (MAPKs) family, p38 MAPK (p38), c-Jun N-terminal kinase (JNK), and extracellular signal-regulated kinase (ERK).
Targets(IC50)	Apoptosis,Akt,AMPK,Interleukin,PI3K,ROS,TNF

Solubility Information

Solubility	Chloroform, Dichloromethane, Ethyl Acetate, Acetone, etc.: Soluble, DMSO: 250 mg/mL (713.29 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 (28.53 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% Saline: < 10 mg/mL (28.53 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% Corn Oil: 2.5 mg/mL (7.13 mM),Sonication is recommended. 10% DMSO+90% (20% SBE-β-CD in Saline): 10 mg/mL (28.53 mM),Solution. *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	2.8531 mL	14.2657 mL	28.5315 mL
5 mM	0.5706 mL	2.8531 mL	5.7063 mL
10 mM	0.2853 mL	1.4266 mL	2.8531 mL
50 mM	0.0571 mL	0.2853 mL	0.5706 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

Ryu MJ1, Chung HS.[10]-Gingerol induces mitochondrial apoptosis through activation of MAPK pathway in HCT116 human colon cancer cells.In Vitro Cell Dev Biol Anim. 2015 Jan;51(1):92-101.

Zhang B, Zhao J, Wang Z, et al. Identification of Multi-Target Anti-AD Chemical Constituents From Traditional Chinese Medicine Formulae by Integrating Virtual Screening and In Vitro Validation. Frontiers in Pharmacology. 2021： 1781

Ho SC1, Chang KS, Lin CC.Anti-neuroinflammatory capacity of fresh ginger is attributed mainly to 10-gingerol.Food Chem. 2013 Dec 1;141(3):3183-91.

Sadakane C1, Muto S, Nakagawa K,et al.10-Gingerol, a component of rikkunshito, improves cisplatin-induced anorexia by inhibiting acylated ghrelin degradation.Biochem Biophys Res Commun. 2011 Sep 2;412(3):506-11.