

Shogaol

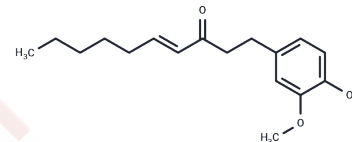
Chemical Properties

CAS No. : 555-66-8

Formula: C₁₇H₂₄O₃

Molecular Weight: 276.37

Storage: Keep away from direct sunlight, Keep away from moisture, Store under nitrogen
 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	1. 6-Shogaol (6-Shogaol) has antipyretic and analgesic effects in addition to inhibitory effect on lipoxygenase activity. 2. 6-shogaol has anti-inflammatory property, reduces the inflammatory response and protected the femoral cartilage from damage produced in a CFA monoarthritic model of the knee joint of rats. 3. 6-Shogaol inhibits the growth of human cancer cells and induces apoptosis in COLO 25 cells through modulation of mitochondrial functions regulated by reactive oxygen species (ROS). 4. 6-Shogaol effectively inhibit invasion and metastasis of hepatocellular carcinoma through diverse molecular mechanisms, including inhibition of the MAPK and PI3k/Akt pathways and NF-κB and STAT3 activities to suppress expression of MMP-2/-9 and uPA and block angiogenesis, could further regulate urokinase-type plasminogen activity.
Targets(IC50)	Autophagy, Lipoxygenase

Solubility Information

Solubility	DMSO: 237.5 mg/mL (859.36 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 (7.24 mM), Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.6183 mL	18.0917 mL	36.1834 mL
5 mM	0.7237 mL	3.6183 mL	7.2367 mL
10 mM	0.3618 mL	1.8092 mL	3.6183 mL
50 mM	0.0724 mL	0.3618 mL	0.7237 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

Han M A , Woo S M , Min K J , et al. 6-Shogaol enhances renal carcinoma Caki cells to TRAIL-induced apoptosis through reactive oxygen species-mediated cytochrome c release and down-regulation of c-FLIP(L) expression[J]. Chem Biol Interact, 2015, 228:69-78.

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

Kamaruddin M S H, Chong G H, Umanan F, et al. Enhancement of 6-gingerol extraction from Bentong ginger using supercritical carbon dioxide. Journal of CO2 Utilization. 2023, 72: 102505.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel: 781-999-4286 E_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481