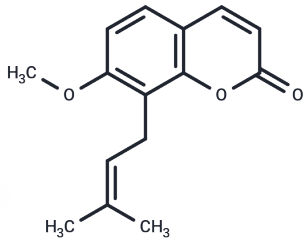
Data Sheet (Cat.No.T2848)

TargetMol

Osthole

Chemical Properties



CAS No. : 484-12-8

Formula: C15H16O3

Molecular Weight: 244.29

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	Osthole (Osthol), a potential inhibitor of histamine H1 receptor, has been shown to stimulate osteoblast proliferation and differentiation.
Targets(IC50)	Apoptosis,Parasite,Histamine Receptor,HBV
In vitro	The LD50 values of Osthole in various animals have been determined as follows: in rats, it exceeds 125 mg/kg when administered intravenously (i.v.); in rabbits, it is over 35 mg/kg (i.v.); and in dogs, it surpasses 150 mg/kg (i.v.).
In vivo	Osthol, when introduced to pre-washed rabbit platelets, inhibits platelet aggregation and ATP release induced by ADP, arachidonic acid, platelet-activating factor (PAF), collagen, ionophore A23187, and thrombin. In human osteoblasts, osthol promotes cell differentiation through the bone morphogenetic protein-2 / p38 and extracellular signal-regulated kinase 1/2 pathways. Additionally, in cell cultures, osthol suppresses the secretion of the hepatitis B virus by enhancing the glycosylation of HBsAg.
Cell Research	Osthole is dissolved in 96% ethyl alcohol and then sterilized through a 0.22 μg/mL filter and stored at 4°C as stock solutions for later dilution[1]. Peripheral blood samples are collected from participants between 7.00 and 9.00 a.m. on the first study day and these are concentrated in grouping tubes with K3EDTA. Fresh PBMCs are then prepared. Isolated cells are seeded on 24-well plates at 1×106 per well with RPMI-1640 and supplemented with 1% heat inactivated human AB serum, 1% gentamicin and 0.25% PHA. Active reagents are added to each well after 24 h and pure medium formed the control for each substance. Cells are then harvested after a further three days[1].

Solubility Information

Solubility	Ethanol: 46 mg/mL (188.3 mM),Sonication is recommended. DMSO: 55 mg/mL (225.14 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), (< 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 (8.19 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*

In vivo Formulation	*vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.0935 mL	20.4675 mL	40.935 mL
5 mM	0.8187 mL	4.0935 mL	8.187 mL
10 mM	0.4093 mL	2.0467 mL	4.0935 mL
50 mM	0.0819 mL	0.4093 mL	0.8187 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

Ko FN, et al. Thromb Haemost, 1989, 62(3), 1996-1999.
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Kuo PL, et al. J Pharmacol Exp Ther, 2005, 314(3), 1290-1299.
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