Data Sheet (Cat.No.T2984)

TargetMol

Scopoletin

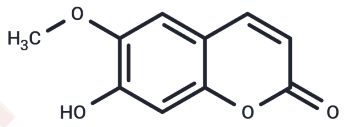
Chemical Properties

CAS No. : 92-61-5

Formula: C10H8O4

Molecular Weight: 192.17

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	Scopoletin (Esculetin 6-methyl ether) is a plant growth factor derived from the root of Scopolia carniolica, inhibits of acetylcholinesterase (AChE).
Targets(IC50)	Apoptosis,AChR,Cholinesterase (ChE)
In vivo	Female BALB/c mice were treated with Mogroside V (2.5, 5 and 10 mg/kg) for 1 h prior to intranasal injection of LPS (10 μg in 50 μl). After 12 h, airway inflammation in the ALI model was determined by the wet/dry weight (W/D) ratio, myeloperoxidase (MPO) activity of lung tissue, leukocyte recruitment and cytokine levels in the bronchoalveolar lavage fluid (BALF). Additionally, lung tissue was examined by histology and western blotting to investigate the changes in pathology and the signalling in the presence and absence of Mogroside V. Mogroside V at 5 and 10 mg/kg inhibited airway inflammation induced by LPS as measured by the decrease in the histological changes (44 and 67.3% reduction in lung injury score, respectively), a 28.9 and 55.3% reduction in lung MPO activity, and inflammatory cell counts, interleukin-1β (IL-1β, 382 and 280 pg/ml, respectively), IL-6 (378 and 232 pg/ml, respectively) and tumor necrosis factor-α (TNF-α, 12.5 and 7.8 ng/ml, respectively) levels in the BALF. Additionally, Mogroside V treatment reduced the activation of cyclooxygenase 2 (COX-2), inducible NO synthase (iNOS), and the nuclear factor (NF)-κB.

Solubility Information

Solubility	DMSO: 62.5 mg/mL (325.23 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 (10.41 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	5.2037 mL	26.0186 mL	52.0373 mL
5 mM	1.0407 mL	5.2037 mL	10.4075 mL
10 mM	0.5204 mL	2.6019 mL	5.2037 mL
50 mM	0.1041 mL	0.5204 mL	1.0407 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

Lee HI, Lee MK. Toxicol Lett. 2015 Sep 17;237(3):210-8.
Kim Y J, Kim T I, Lee A, et al.Sinomenium acutum Modulates Platelet Aggregation and Thrombus Formation by Regulating the Glycoprotein VI-Mediated Signalosome in Mice.Pharmaceuticals.2023, 17(1): 6.
Liu Q, Li X, Li Y, et al.A novel network pharmacology strategy to decode mechanism of Wuling Powder in treating liver cirrhosis.Chinese Medicine.2024, 19(1): 36.