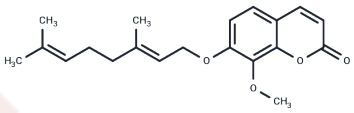
Data Sheet (Cat.No.T38330)

TargetMol

Collinin

Chemical Properties



CAS No. : 34465-83-3

Formula: C20H24O4

Molecular Weight: 328.4

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	Collinin is a coumarin that has been found in Z. schinifolium and has diverse biological activities.1,2,3,4 It is active against drug-susceptible and -resistant strains of M. tuberculosis (MIC50s = 3.13-6.25 μg/ml).1 Collinin inhibits LPS-induced nitric oxide (NO) production (IC50 = 5.9 μM) and reduces COX-2 protein levels in RAW 264.7 cells.2 It completely inhibits aggregation of isolated rabbit platelets induced by arachidonic acid , collagen, or platelet activating factor (PAF) when used at a concentration of 100 μM.3 Dietary administration of collinin (0.05% w/w) reduces the number of mice with tumors and the number of tumors per mouse in a mouse model of colitis-related carcinogenesis.4
Targets(IC50)	Others,Antibacterial

Solubility Information

Solubility	DMSO: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0451 mL	15.2253 mL	30.4507 mL
5 mM	0.609 mL	3.0451 mL	6.0901 mL
10 mM	0.3045 mL	1.5225 mL	3.0451 mL
50 mM	0.0609 mL	0.3045 mL	0.609 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

Kim, S., Seo, H., Al Mahmud, H., et al. In vitro activity of collinin isolated from the leaves of Zanthoxylum schinifolium against multidrug- and extensively drug-resistant Mycobacterium tuberculosis. Phytomedicine 46, 104-110 (2018).
Nguyen, P.-H., Zhao, B.T., Kim, O., et al. Anti-inflammatory terpenylated coumarins from the leaves of Zanthoxylum schinifolium with α-glucosidase inhibitory activity. J. Nat. Med. 70(2), 276-281 (2016).
I.S., C., Lin, Y.C., Tsai, I.L., et al. Coumarins and anti-platelet aggregation constituents from Zanthoxylum schinifolium. Phytochemistry 39(5), 1091-1097 (1995).
Kohno, H., Suzuki, R., Curini, M., et al. Dietary administration with prenyloxycoumarins, auraptene and collinin, inhibits colitis-related colon carcinogenesis in mice. Int. J. Cancer 118(12), 2936-2942 (2006).