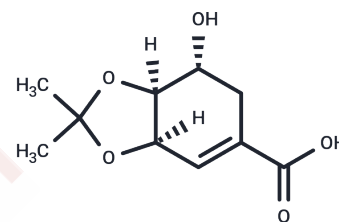


3,4-O-Isopropylidene-shikimic acid

Chemical Properties

CAS No. :	183075-03-8
Formula:	C ₁₀ H ₁₄ O ₅
Molecular Weight:	214.22
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	3,4-O-Isopropylidene-shikimic acid (3,4-O-Isopropylidene shikimic acid) exhibits significant anti-inflammatory, anti-thrombosis, antioxidant, and analgesic effects, and provides protective benefits against trinitrobenzenesulfonic acid-induced experimental colitis in rats, likely because of its antioxidant properties.
Targets(IC50)	NOS,NO Synthase
In vitro	3,4-O-Isopropylidene shikimic acid (ISA,1-100 micromol/L) effectively reduced PMN adhesion to TNF-alpha-induced HUVEC with the inhibitory rate from 17.2 % to 53.5 % and exerted no effect on PMN adhesion to normal HUVEC. Adhesion molecule ICAM-1 surface protein and mRNA expression induced by TNF-alpha (400 kU/L) were significantly inhibited by ISA. In addition, the cell viability of HUVEC was unchanged 48 h after treatment with ISA[1]

Solubility Information

Solubility	DMSO: 60 mg/mL (280.09 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 (9.34 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	4.6681 mL	23.3405 mL	46.681 mL
5 mM	0.9336 mL	4.6681 mL	9.3362 mL
10 mM	0.4668 mL	2.334 mL	4.6681 mL
50 mM	0.0934 mL	0.4668 mL	0.9336 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

3,4-oxo-isopropylidene-shikimic acid inhibits adhesion of polymorphonuclear leukocyte to TNF-alpha-induced endothelial cells in vitro. *Acta Pharmacol Sin.* 2004 Feb;25(2):246-50.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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