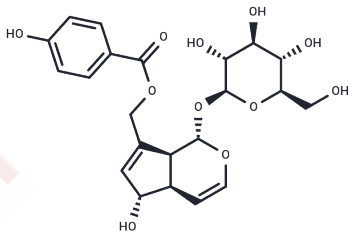
Data Sheet (Cat.No.T3868)

TargetMol

Agnuside

Chemical Properties



CAS No. : 11027-63-7

Formula: C22H26O11

Molecular Weight: 466.44

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	Agnuside (chasteberry oil) inhibits COX-2 (IC50: 0.026 mg/ml) but exhibits less than 10% inhibition of COX-1 at this concentration. It also inhibits 46.3, 66.8, and 82.1% of P-glycoprotein (P-gp) ATPase activity at concentrations of 5, 25, and 100 μM, respectively.
Targets(IC50)	HIF/HIF Prolyl-Hydroxylase,Caspase,NO Synthase,COX,P-gp,Prostaglandin Receptor, ASCT
In vitro	Agnuside (0.1-10 μM) induces proliferation of MCF-7 breast cancer cells, an effect that is inhibited by the estrogen receptor antagonist fulvestrant [2].
In vivo	Agnuside (50 mg/kg) reduces acetic acid-induced writhing in mice indicating analgesia. 3 It also suppresses production of the pro-inflammatory mediators' prostaglandin E2 (PGE2) and leukotriene B4 and the T cell-mediated cytokines IL-2, TNF-α, INF-γ, IL-4, IL-10, and IL-17 in splenocytes and arthritic paw tissue from arthritic adrenalectomized rats.4

Solubility Information

Solubility	DMSO: 150 mg/mL (321.58 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 (4.29 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	2.1439 mL	10.7195 mL	21.439 mL
5 mM	0.4288 mL	2.1439 mL	4.2878 mL
10 mM	0.2144 mL	1.0719 mL	2.1439 mL
50 mM	0.0429 mL	0.2144 mL	0.4288 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

Suksamrarn A, et al. Iridoids with anti-inflammatory activity from Vitex peduncularis. Planta Med. 2002 Jan;68(1):72-3.
Hu Y, et al. Evaluation of the estrogenic activity of the constituents in the fruits of Vitex rotundifolia L. for the potential treatment of premenstrual syndrome. J Pharm Pharmacol. 2007 Sep;59(9):1307-12.
Okuyama E, et al. Pharmacologically active components of viticis fructus (Vitex rotundifolia). II. The components having analgesic effects. Chem Pharm Bull (Tokyo). 1998 Apr;46(4):655-62.
Pandey A, et al. Anti-arthritic activity of agnuside mediated through the down-regulation of inflammatory mediators and cytokines. Inflamm Res. 2012 Apr;61(4):293-304.
Najar IA, et al. Modulation of P-glycoprotein ATPase activity by some phytoconstituents. Phytother Res. 2010 Mar;24(3):454-8.