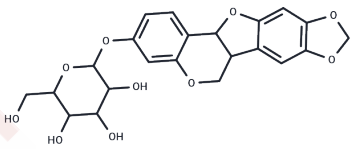
Data Sheet (Cat.No.T4S0998)

TargetMol

Trifolirhizin

Chemical Properties



CAS No. : 6807-83-6

Formula: C22H22O10

Molecular Weight: 446.40

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	Trifolirhizin exerts varying degrees of inhibition on tyrosinase-dependent melanin biosynthesis, and therefore, are candidates as skin-whitening agents.Trifolirhizin possesses potential anti-inflammatory and anti-cancer activities.Trifolirhizin shows in vitro inhibitory effects on the growth of human A2780 ovarian and H23 lung cancer cells. Trifolirhizin inhibits acetylcholine mediated airway smooth muscle (ASM) contraction or directly relaxes pre-contracted ASM independent of β 2 -adrenoceptors.
Targets(IC50)	TNF,Tyrosinase

Solubility Information

Solubility	DMSO: 250 mg/mL (560.04 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: 3.30 mg/mL (7.39 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	2.2401 mL	11.2007 mL	22.4014 mL
5 mM	0.448 mL	2.2401 mL	4.4803 mL
10 mM	0.224 mL	1.1201 mL	2.2401 mL
50 mM	0.0448 mL	0.224 mL	0.448 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

Yang N, Liang B, et al.The Sophora flavescens flavonoid compound trifolirhizin inhibits acetylcholine induced airway smooth muscle contraction.Phytochemistry. 2013 Nov;95:259-267.
Zhou H, Lutterodt H,et al.Anti-Inflammatory and antiproliferative activities of trifolirhizin, a flavonoid from Sophora flavescens roots.J Agric Food Chem. 2009 Jun 10;57(11):4580-5.
Aratanechemuge Y, Hibasami H, et al.Induction of apoptosis by maackiain and trifolirhizin (maackiain glycoside) isolated from sanzukon (Sophora Subprostrate Chen et T. Chen) in human promyelotic leukemia HL-60 cells.Oncol Rep. 2004 Dec;12(6):1183-8.
Hyun SK, Lee WH,et al.Inhibitory effects of kurarinol, kuraridinol, and trifolirhizin from Sophora flavescens on tyrosinase and melanin synthesis.Biol Pharm Bull. 2008 Jan;31(1):154-8.