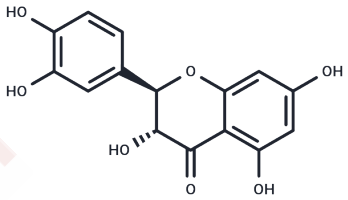
Data Sheet (Cat.No.T40080)

TargetMol

(±)-Taxifolin

Chemical Properties



CAS No. : 24198-97-8

Formula: C15H12O7

Molecular Weight: 304.25

Storage: Store at low temperature,Keep away from direct sunlight
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	(±)-Taxifolin ((±)-Dihydroquercetin) is the racemate of Taxifolin, a flavonoid with anti-tyrosinase and anti-fibrotic activity, commonly found in onion, silymarin, French maritime pine bark, and Douglas fir bark. It inhibits collagenase with an IC50 value of 193.3 μM and acts as a free radical scavenger with antioxidant capacity.
Targets(IC50)	Antioxidant,Autophagy,Tyrosinase
In vivo	Taxifolin (10 mg/kg; AD model mice) treatment also significantly prevented the decreased expression levels of PSD 95 induced by Aβ42. A live cell imaging study showed that a 2 h pre-treatment of taxifolin prevented the decrease in the number of filopodium and spine induced by Aβ42 oligomers.[3]

Solubility Information

Solubility	Ethanol: 18 mg/mL (59.16 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 (6.57 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	3.2868 mL	16.4339 mL	32.8677 mL
5 mM	0.6574 mL	3.2868 mL	6.5735 mL
10 mM	0.3287 mL	1.6434 mL	3.2868 mL
50 mM	0.0657 mL	0.3287 mL	0.6574 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

Angelis A, et al. Bio-Guided Isolation of Methanol-Soluble Metabolites of Common Spruce (Picea abies) Bark by-Products and Investigation of Their Dermo-Cosmetic Properties. Molecules. 2016 Nov 21;21(11):1586.
Lei Ren, et al. Dissecting Efficacy and Metabolic Characteristic Mechanism of Taxifolin on Renal Fibrosis by Multivariate Approach and Ultra-Performance Liquid Chromatography Coupled With Mass Spectrometry-Based Metabolomics Strategy. Front Pharmacol. 2021 Jan 14;11:608511.
Wang Y, et al. Taxifolin prevents β-amyloid-induced impairments of synaptic formation and deficits of memory via the inhibition of cytosolic phospholipase A2/prostaglandin E2 content. Metab Brain Dis. 2018;33(4):1069-1079.
Yang CL, et al. Hepatoprotective Mechanisms of Taxifolin on Carbon Tetrachloride-Induced Acute Liver Injury in Mice. Nutrients. 2019;11(11):2655.