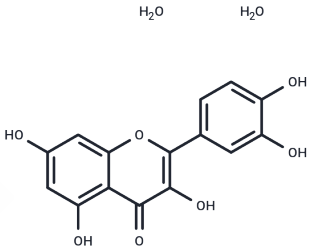
Data Sheet (Cat.No.T6630)

TargetMol

Quercetin Dihydrate

Chemical Properties



CAS No. : 6151-25-3

Formula: C15H10O7·2H2O

Molecular Weight: 338.27

Storage: Store at low temperature
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	Quercetin Dihydrate (Sophoretin) is a polyphenolic flavonoid that was found in a wide variety of plant-based foods, such as apples, onions, berries, and red wine. It is used for their nervous system and anticancer effects.
Targets(IC50)	Apoptosis,PI3K
In vitro	Quercetin, a polyphenolic flavonoid found in a wide variety of plant-based foods, such as apples, onions, berries, and red wine, is utilized in many different cultures for their nervous system and anticancer effects. The pharmacological activities of quercetin that modulate antioxidation/oxidation/kinase-signaling pathways might be differentially elicited in neurons compared with malignant cells, ultimately promoting cell survival or death in a cell type- and metabolism-specific manner. Whereas the broad antioxidation and anti-inflammatory activities of quercetin are important for neuronal survival, the oxidative, kinase- and cell cycle-inhibitory, apoptosis-inducing effects of quercetin are essential for its anticancer effects. [1]
In vivo	LD50: Mice 159 mg/kg (i.g.) [2]

Solubility Information

Solubility	H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: 15 mg/mL (44.34 mM),Sonication is recommended. DMSO: 45 mg/mL (133.03 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 (5.91 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	2.9562 mL	14.7811 mL	29.5622 mL
5 mM	0.5912 mL	2.9562 mL	5.9124 mL
10 mM	0.2956 mL	1.4781 mL	2.9562 mL
50 mM	0.0591 mL	0.2956 mL	0.5912 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

Dajas F, J Ethnopharmacol, 2012, 143(2), 383-396.
Tang Y, Song H, Wang Z, et al. Repurposing antiparasitic antimonials to noncovalently rescue temperature-sensitive p53 mutations. Cell Reports. 2022, 39(2): 110622
Jing L, Lin J, Yang Y, et al. Quercetin inhibiting the PD-1/PD-L1 interaction for immune-enhancing cancer chemopreventive agent. Phytotherapy Research. 2021
Sing SE, et al. Int J Environ Res Public Health. 2011 Jul;8(7):2828-2853.
Tang Y, Song H, Wang Z, et al.Repurposing antiparasitic antimonials to noncovalently rescue temperature-sensitive p53 mutations.Cell Reports.2022, 39(2): 110622.