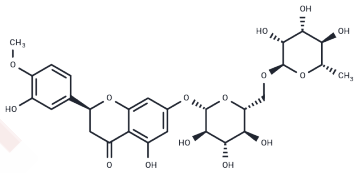
Data Sheet (Cat.No.T1035)

TargetMol

Hesperidin

Chemical Properties



CAS No. : 520-26-3

Formula: C28H34O15

Molecular Weight: 610.56

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	Hesperidin (Cirantin) is a flavanone glycoside found in citrus fruits with antioxidant, anti-inflammatory, anti-carcinogenic, and antihypertensive and lipid-lowering activity.
Targets(IC50)	Apoptosis,Reactive Oxygen Species,Endogenous Metabolite,Autophagy,ROS
In vitro	**METHODS**: Tumor cells HeLa and HT-29 were treated with Hesperidin (20-100 μM) for 24-72 h. Cell viability was measured by MTT assay. **RESULTS**: Treatment with Hesperidin significantly reduced cell viability and the effect of Hesperidin on cell viability was concentration and time dependent. Cells incubated with 100 μM Hesperidin for 72 h showed the greatest antiproliferative effect, with cell viability decreasing to 12% of control cells. [1] **METHODS**: Human mesothelioma cells MSTO-211H were treated with Hesperidin (40-160 μM) for 48 h. Apoptosis was detected using DAPI and PI staining. **RESULTS**: The percentage of sub-G1 phase increased from 20% to 35% in 40-160 μM Hesperidi-treated MSTO-211H cells. [2]
In vivo	**METHODS**: To assay antitumor activity in vivo, Hesperidin (200 mg/kg) was administered by gavage to BALB/c mice bearing CT-26 xenografts once daily for five days. Hesperidin was then administered as a single dose of cyclophosphamide (25 mg/kg) for fourteen days. **RESULTS**: Leukocyte counts were increased in mice treated with Hesperidin prior to cyclophosphamide injection. This significant protective effect was observed 4 and 7 days after cyclophosphamide injection. In CT-26 tumor-bearing mice, co-administration of Hesperidin and cyclophosphamide significantly inhibited cyclophosphamide-induced delay in tumor growth. [3]

Solubility Information

Solubility	DMSO: 245 mg/mL (401.27 mM),Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), H2O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 6 mg/mL (9.83 mM),Suspension. *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*

In vivo Formulation	*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	1.6378 mL	8.1892 mL	16.3784 mL
5 mM	0.3276 mL	1.6378 mL	3.2757 mL
10 mM	0.1638 mL	0.8189 mL	1.6378 mL
50 mM	0.0328 mL	0.1638 mL	0.3276 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

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