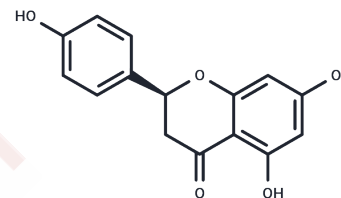


Naringenin

Chemical Properties

CAS No. :	480-41-1
Formula:	C ₁₅ H ₁₂ O ₅
Molecular Weight:	272.25
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	Naringenin (NSC-11855) is a flavanone that is considered to have a bioactive effect on human health as antioxidant, free radical scavenger, antiinflammatory, carbohydrate metabolism promoter, immunity system modulator. This substance has also been shown to repair DNA.
Targets(IC50)	Anti-infection, Reactive Oxygen Species, Endogenous Metabolite, Cytochromes P450, Influenza Virus, PPAR, ROS
In vitro	In both normoglycemic and non-insulin-dependent diabetes mellitus rat models, oral administration of 50 mg/kg Naringenin resulted in a significant decrease in plasma glucose levels.
In vivo	Naringenin, found in grapefruit juice, has been demonstrated to inhibit the human cytochrome P450 isoform CYP1A2. This can adversely alter the pharmacokinetics of several common agents in human (or directly homologous) hosts, potentially rendering otherwise harmless substances carcinogenic.
Cell Research	Naringenin is dissolved in DMSO and diluted in cell culture medium. The cells are rinsed with PBS and grown in a medium containing various concentrations of naringenin (50, 100, 150, 200, 250, 300 µM). The solvent DMSO treated cells are served as control. After 24 hrs of treatment, the medium is removed and replaced by another medium containing MTT. Cell viability is measured using the MTT assay[1].

Solubility Information

Solubility	DMSO: 100 mg/mL (367.31 mM), Sonication is recommended. Ethanol: 5 mg/mL (18.37 mM), Sonication is recommended. H ₂ O: < 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: 4 mg/mL (14.69 mM), Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.6731 mL	18.3655 mL	36.7309 mL
5 mM	0.7346 mL	3.6731 mL	7.3462 mL
10 mM	0.3673 mL	1.8365 mL	3.6731 mL
50 mM	0.0735 mL	0.3673 mL	0.7346 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

Fuhr U, et al. Br J Clin Pharmacol, 1993, 35(4):431-436.

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Hoser J, Weglinska G, Samsel A, et al. Modulation of the Respiratory Epithelium Physiology by Flavonoids—Insights from 16HBE_{scell} Model. *International Journal of Molecular Sciences*. 2024, 25(22): 11999.

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