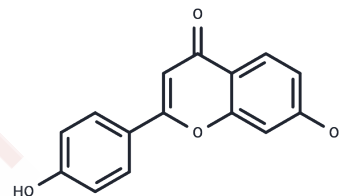


7,4'-Dihydroxyflavone

Chemical Properties

CAS No. :	2196-14-7
Formula:	C ₁₅ H ₁₀ O ₄
Molecular Weight:	254.24
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	7,4'-Dihydroxyflavone (4',7-Dihydroxyflavone) can induce transcription of nodulation (nod) genes in <i>Rhizobium meliloti</i> . It has inhibitory activities against COX-2.
Targets(IC50)	NF-κB,HDAC,CCR,NOD,COX
In vitro	Root exudate from 3-day-old alfalfa seedlings was purified and then assayed for biological activity with a nodABC-lacZ fusion in <i>R. meliloti</i> . Identities of major nod inducers were established by spectroscopic analyses (ultraviolet/visible, proton nuclear magnetic resonance, and mass spectroscopy) and comparison with authentic standards. Major nod inducers, which were identified as 4',7-Dihydroxyflavone, 4'-7-dihydroxyflavanone, and 4,4'-dihydroxy-2'-methoxychalcone, were released from seedling roots at 54, 22, and 20 picomole.plant ⁽⁻¹⁾ .day ⁽⁻¹⁾ , respectively. Luteolin was not found in these root exudates.

Solubility Information

Solubility	DMSO: 250 mg/mL (983.32 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: 5 mg/mL (19.67 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	3.9333 mL	19.6665 mL	39.3329 mL
5 mM	0.7867 mL	3.9333 mL	7.8666 mL
10 mM	0.3933 mL	1.9666 mL	3.9333 mL
50 mM	0.0787 mL	0.3933 mL	0.7867 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

A Chalcone and Two Related Flavonoids Released from Alfalfa Roots Induce nod Genes of Rhizobium meliloti. Plant Physiol., 1989, 91(3):842-7.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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