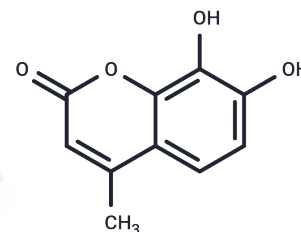


## 4-Methyldaphnetin

## Chemical Properties

CAS No. :	2107-77-9
Formula:	C <sub>10</sub> H <sub>8</sub> O <sub>4</sub>
Molecular Weight:	192.17
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	4-Methyldaphnetin (DHMC) is a potent inhibitor (low micromolar) of lipid peroxidation and scavengers of superoxide anion radicals and of aqueous alkylperoxyl radicals, but may be pro-oxidant (enhancing generation of hydroxyl radicals) in the presence of free iron ions. 4-Methyldaphnetin (7,8-Dihydroxy-4-methylcoumarin) inhibits the proinflammatory 5-lipoxygenase enzyme at micromolar concentrations.
Targets(IC50)	Apoptosis, Lipoxygenase

## Solubility Information

Solubility	Chloroform, Dichloromethane, Ethyl Acetate, Acetone, etc.: Soluble, DMSO: 35 mg/mL (182.13 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 (10.41 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

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	1mg	5mg	10mg
1 mM	5.2037 mL	26.0186 mL	52.0373 mL
5 mM	1.0407 mL	5.2037 mL	10.4075 mL
10 mM	0.5204 mL	2.6019 mL	5.2037 mL
50 mM	0.1041 mL	0.5204 mL	1.0407 mL

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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

Hoult J R S , Miguel Pay"¢. Pharmacological and biochemical actions of simple coumarins: Natural products with therapeutic potential[j]. General Pharmacology the Vascular System, 1996, 27(4):713-722.

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