

## Nobiletin

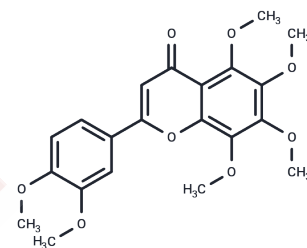
## Chemical Properties

CAS No. : 478-01-3

Formula: C<sub>21</sub>H<sub>22</sub>O<sub>8</sub>

Molecular Weight: 402.39

Storage: Keep away from moisture, Store at low temperature,  
Store under nitrogen  
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	Nobiletin (Hexamethoxyflavone) is a natural polymethoxylated flavone isolated from citrus peels with anti-inflammatory and anti-tumor activities. Nobiletin is practically insoluble (in water) and an extremely weak acidic compound (based on its pKa).
Targets(IC50)	Apoptosis, MMP, Reactive Oxygen Species, Autophagy, ROR, ROS
In vivo	LD50: 780 mg/kg (i.g.). [4]

## Solubility Information

Solubility	H <sub>2</sub> O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: 3 mg/mL (7.46 mM), Sonication is recommended. DMSO: 73 mg/mL (181.42 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 (4.97 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	2.4852 mL	12.4258 mL	24.8515 mL
5 mM	0.497 mL	2.4852 mL	4.9703 mL
10 mM	0.2485 mL	1.2426 mL	2.4852 mL
50 mM	0.0497 mL	0.2485 mL	0.497 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

Murakami A, et al. *Cancer Res*, 2000, 60(18), 5059-5066.

Liu D, Wei B, Liang L, et al. The Circadian Clock Component RORA Increases Immunosurveillance in Melanoma by Inhibiting PD-L1 Expression. *Cancer Research*. 2024

Sato T, et al. *Cancer Res*, 2002, 62(4), 1025-1029.

Whitman SC, et al. *Atherosclerosis*, 2005, 178(1), 25-32.

He B, et al. The Small Molecule Nobiletin Targets the Molecular Oscillator to Enhance Circadian Rhythms and Protect against Metabolic Syndrome. *Cell Metab*. 2016 Apr 12;23(4):610-21.

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