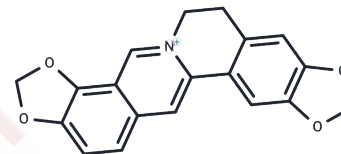


## Coptisine

### Chemical Properties

CAS No. : 3486-66-6  
 Formula: C<sub>19</sub>H<sub>14</sub>N<sub>2</sub>O<sub>4</sub>  
 Molecular Weight: 320.32  
 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	<p>1. Coptisine (Coptisin) treatment increases cell viability based on its reversal effect on the enhanced activity of Indoleamine 2, 3-dioxygenase . 2. Coptisine treats myocardial I/R likely through suppressing myocardial apoptosis and inflammation by inhibiting the Rho/ROCK pathway. 3. Coptisine is a potential anti-osteosarcoma drug candidate, via exerting a strong anti-osteosarcoma effect with very low toxicity . 4. Coptisine with a high dosage could inhibit cholesterol synthesis via suppressing the HMGCR expression and promoting the use and excretion of cholesterol via up-regulating LDLR and CYP7A1 expression. 5. Coptisine suppresses adhesion, migration and invasion of MDA-MB-231 breast cancer cells in vitro, the down-regulation of MMP-9 in combination with the increase of TIMP-1 possibly contributing to the anti-metastatic function for breast cancer.</p>
Targets(IC50)	IDO,Indoleamine 2,3-Dioxygenase (IDO),LDLR

### Solubility Information

Solubility	DMSO: 3.91 mg/mL (12.21 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: 0.39 mg/mL (1.22 mM),Suspension. <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	3.1219 mL	15.6094 mL	31.2188 mL
5 mM	0.6244 mL	3.1219 mL	6.2438 mL
10 mM	0.3122 mL	1.5609 mL	3.1219 mL
50 mM	0.0624 mL	0.3122 mL	0.6244 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

He K, et al. The safety and anti-hypercholesterolemic effect of coptisine in Syrian golden hamsters. *Lipids*. 2015 Feb;50(2):185-94.

Rao PC, et al. Coptisine-induced cell cycle arrest at G2/M phase and reactive oxygen species-dependent mitochondria-mediated apoptosis in non-small-cell lung cancer A549 cells. *Tumour Biol*. 2017 Mar;39(3):12010428317694565.

Yu D, et al. The IDO inhibitor coptisine ameliorates cognitive impairment in a mouse model of Alzheimer's disease. *J Alzheimers Dis*. 2015;43(1):291-302.

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