

Butin

Chemical Properties

CAS No. : 21913-99-5

Formula: C₁₅H₁₂O₅

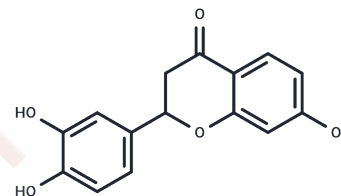
Molecular Weight: 272.25

Storage:

Keep away from direct sunlight, Keep away from moisture, Store at low temperature

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	Butin, the major bioactive flavonoid isolated from Dalbergia odorifera heartwood, possesses oral activity with notable antioxidant, antiplatelet, and anti-inflammatory effects. This compound effectively alleviates myocardial infarction, improves cardiac function, and prevents diabetes-induced cardiac oxidative damage in rats.
Targets(IC50)	Antioxidant
In vitro	Methods: H9c2 cells were treated with Butin (12.5, 25, 50 μ M, 6 hours). Cell viability was detected by MTT assay, target protein expression was detected by Western blotting, and target gene expression was detected by real-time qPCR. Results: Butin increased cell survival in a dose-dependent manner, increased the expression of GSH-px, GSH, SOD, CAT, and HO-1, and increased the level of Nrf2 in the cytoplasm and nucleus in a dose-dependent manner, and enhanced the expression of GSH-px, GSH, SOD, CAT, and HO-1. [1]
In vivo	Butin significantly alleviates myocardial infarction and improves heart function, together with prevents diabetes-induced cardiac oxidative damage in rats [1].

Solubility Information

Solubility	DMSO: 80 mg/mL (293.85 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: 3.3 mg/mL (12.12 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

Duan J, et al. Protective effect of butin against ischemia/reperfusion-induced myocardial injury in diabetic mice: involvement of the AMPK/GSK-3 β /Nrf2 signaling pathway. *Sci Rep.* 2017 Jan 27;7:41491.

Li P, et al. Butin Attenuates Brain Edema in a Rat Model of Intracerebral Hemorrhage by Anti Inflammatory Pathway. *Transl Neurosci.* 2018 May 8;9:7-12.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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