

Rutaecarpine

Chemical Properties

CAS No. : 84-26-4

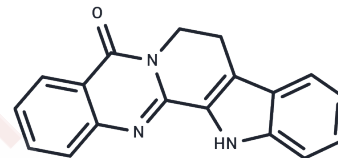
Formula: C₁₈H₁₃N₃O

Molecular Weight: 287.32

Keep away from direct sunlight

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	Rutaecarpine (Rhetine) is an inhibitor of COX-2 with IC ₅₀ of 0.28 μM.
Targets(IC ₅₀)	COX
In vitro	Rutaecarpine is an indolopyridoquinazolinone alkaloid isolated from <i>Evodia rutaecarpa</i> and related herbs, which has shown a variety of intriguing biological properties such as anti-thrombotic, anticancer, anti-inflammatory and analgesic, anti-obesity and thermoregulatory, vasorelaxing activity, as well as effects on the cardiovascular and endocrine systems. [1]
Cell Research	Rutaecarpine is dissolved in DMSO and diluted with appropriate medium before use. COX-1 and COX-2 cDNA-transfected HEK293 cells are prepared. For measuring inhibitory activity on COX-1 and COX-2 by rutaecarpine, cells in 1 mL of culture medium are seeded into each well of 24-well. After culture for 4 days, the supernatants are removed and 250 mL of fresh medium is added to the cells with or without rutaecarpine. After preincubation for 5 h at 37°C, the cells are further incubated at 37°C for 30 min with 50 mM arachidonic acid. All reactions are stopped by centrifugation at 120 g at 4°C for 5 min. Concentrations of PGE ₂ in the supernatant are measured[1].

Solubility Information

Solubility	Ethanol: 0.3 mg/mL (1.04 mM) DMSO: 50 mg/mL (174.02 mM),Sonication is recommended. H ₂ O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	PBS: < 1 mg/mL (insoluble) <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	3.4804 mL	17.4022 mL	34.8044 mL
5 mM	0.6961 mL	3.4804 mL	6.9609 mL
10 mM	0.348 mL	1.7402 mL	3.4804 mL
50 mM	0.0696 mL	0.348 mL	0.6961 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

Lee SH, et al. *Molecules*, 2008, 13(2), 272-300.

Yang XW, et al. *J Asian Nat Prod Res*, 2006, 8(8), 697-703.

Moon TC, et al. *Inflamm Res*. 1999, 48(12):621-5.

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