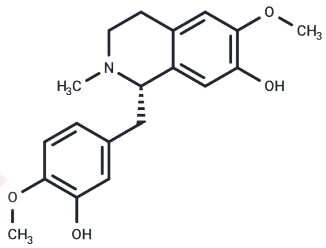
Data Sheet (Cat.No.T4243)

TargetMol

Reticuline

Chemical Properties



CAS No. : 485-19-8

Formula: C19H23NO4

Molecular Weight: 329.39

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	Reticuline is an anti-inflammatory and antihypertensive natural product that reduces JAK2/STAT3 and NF-κB phosphorylation levels, inhibits TNF-α and IL-6 mRNA expression, thereby alleviating oedema in rats.
Targets(IC50)	NF-κB,STAT,JAK
In vitro	In intact endothelium aortic rings, reticuline (3 μM-1.5 mM) concentration-dependently inhibited phenylephrine- and KCl (80 mM and 30 mM)-induced contractions, with IC50 values of 40±10, 240±40, and 300±40 μM, respectively [2]. After endothelium removal, the inhibitory effect of reticuline on phenylephrine-induced contraction was significantly attenuated, with an IC50 value of 250±70 μM [2]. In the presence of L-NAME (100 or 300 μM) or atropine (1 μM), the vasorelaxant effect of reticuline was also markedly reduced [2]. Reticuline further suppressed CaCl2-induced contraction and calcium transients triggered by the release of intracellular calcium stores sensitive to depolarizing agents such as phenylephrine, but did not affect caffeine-sensitive calcium stores [2].
In vivo	Reticuline (5, 10, and 20 mg/kg, intravenous injection) induced significant hypotensive responses in normotensive Wistar rats, accompanied by increased heart rate. After pretreatment with L-NAME or atropine, the hypotensive effect and tachycardia caused by reticuline were markedly attenuated or even completely abolished [2].

Solubility Information

Solubility	DMSO: 80 mg/mL (242.87 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 (10.02 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0359 mL	15.1796 mL	30.3591 mL
5 mM	0.6072 mL	3.0359 mL	6.0718 mL
10 mM	0.3036 mL	1.518 mL	3.0359 mL
50 mM	0.0607 mL	0.3036 mL	0.6072 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

Yang X, et al. Anti-Inflammatory Effects of Boldine and Reticuline Isolated from Litsea cubeba through JAK2/STAT3 and NF-κB Signaling Pathways. Planta Med. 2018 Jan;84(1):20-25.
Katy Lísias Dias, et al. Cardiovascular effects induced by reticuline in normotensive rats. Planta Med. 2004 Apr;70 (4):328-33.