(R)-Reticuline

Cat. No.: HY-N1356A

CAS No.: 3968-19-2

Molecular Formula: $C_{19}H_{23}NO_4$

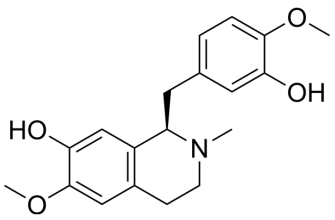
Molecular Weight: 329.39

Target: Others

Pathway: Others

Storage: 4°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (303.59 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	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	1.5180 mL	3.0359 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (7.59 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (7.59 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

(R)-Reticuline is an isomer of Reticuline (HY-N1356). Reticuline displays anti-inflammatory and cardiovascular effects through JAK2/STAT3 and NF-κB signaling pathways. Salutaridine is a key intermediate in morphine biosynthesis. Salutaridine can be converted from (R)-Reticuline in the poppy plant. The conversion system relies on membrane-bound cytochrome P-450 enzymes and also requires reducing cofactors NADPH, molecular oxygen, etc[1][2].

REFERENCES

[1]. Gerardy R, et al. Formation of salutaridine from (R)-reticuline by a membrane-bound cytochrome P-450 enzyme from Papaver somniferum[J]. Phytochemistry, 1992, 32(1): 79-86.

[2]. 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.

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