Drotaverine hydrochloride

Cat. No.: HY-108974

CAS No.: 985-12-6

Molecular Formula: $C_{24}H_{32}ClNO_4$

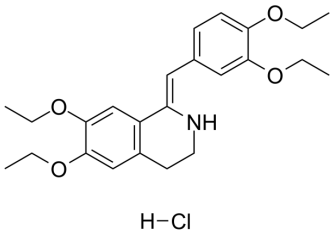
Molecular Weight: 433.97

Target: Phosphodiesterase (PDE); Calcium Channel

Pathway: Metabolic Enzyme/Protease; Membrane Transporter/Ion Channel; Neuronal Signaling

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H_2O : 100 mg/mL (230.43 mM; Need ultrasonic)

DMSO : 62.5 mg/mL (144.02 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.3043 mL	11.5215 mL	23.0431 mL
5 mM	0.4609 mL	2.3043 mL	4.6086 mL
10 mM	0.2304 mL	1.1522 mL	2.3043 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: ≥ 2.08 mg/mL (4.79 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.79 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.79 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Drotaverine (hydrochloride) is a type 4 cyclic nucleotide phosphodiesterase (PDE4) inhibitor and an L-type voltage-dependent calcium channel (L-VDCC) blocker, blocks the degradation of 3',5'-cyclic adenosine monophosphate. Drotaverine (hydrochloride) exhibits in vivo antispasmodic efficacy without anticholinergic effects.

REFERENCES

[1]. Patai Z, Guttman A, Mikus EG. Assessment of the Airway Smooth Muscle Relaxant Effect of Drotaverine. Pharmacology. 2018;101(3-4):163-169.

Caution: Product has not been fully validated for medical applications. For research use only.

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