

Product Data Sheet

Product Name: Ethaverine hydrochloride

Cat. No.: GC74193

Chemical Properties

Cas. No. 985-13-7

Formula $C_{24}H_{30}ClNO_4$

M.Wt 431.95

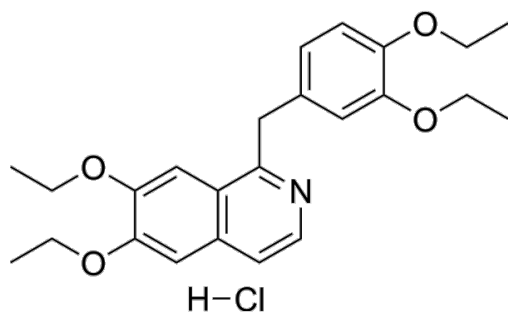
Solubility

Storage

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available sizes: ship with RT, or blue ice upon request.

Structure



Background

Ethaverine drochloride, a derivative of papaverine, inhibits cardiac L-type calcium channel. Ethaverine drochloride is a peripheral vasodilator and antispasmodic agent. Ethaverine drochloride can be used for research of peripheral vascular disease.

Ethaverine drochloride (10 μM, PC12 cells) reduces catecholamine secretion by blocking the L-type voltage-sensitive Ca^{2+} channel[2]. Ethaverine drochloride (12 h) decreases dopamine content by

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

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inhibiting tyrosine droxylase (TH) activity in PC12 cells, with an IC₅₀ of 1.4 µM[3]. Ethaverine drochloride inhibits monoamine oxidase (MAO) activity in mouse brain (isolated from mouse whole brain), with an IC₅₀ of 25.5 µM[6].

Ethaverine drochloride (2-10 mg/kg, intravenous infusion, i.v.) causes significant elevation of endocochlear potential in guinea pigs[4]. Ethaverine (1-10 mg/kg, i.v.) inhibits atrioventricular conduction and heart rate in the anaesthetized dog[5].

References:

- [1]. Wang Y, et al. Ethaverine, a derivative of papaverine, inhibits cardiac L-type calcium channels. *Mol Pharmacol*. 1991 Nov;40(5):750-5.
- [2]. Suh BC, et al. Inhibition by ethaverine of catecholamine secretion through blocking L-type Ca²⁺ channels in PC12 cells. *Biochem Pharmacol*. 1994 Mar 29;47(7):1262-6.
- [3]. Shin JS, et al. Inhibitory effects of ethaverine, a homologue of papaverine, on dopamine content in PC12 cells. *Biol Pharm Bull*. 2001 Jan;24(1):103-5.
- [4]. Prazma J, et al. Effect of ethaverine drochloride on cochlear microcirculation. *Arch Otolaryngol*. 1981 Apr;107(4):227-9.
- [5]. Lacroix P, et al. [Comparative activity of ethaverine and papaverine on chronotropic and dromotropic cardiac functions in the anesthetized dog]. *Arch Int Pharmacodyn Ther*. 1976 May;221(1):163-76. French.
- [6]. Lee SS, et al. Inhibitory effects of ethaverine, a homologue of papaverine, on monoamine oxidase activity in mouse brain. *Biol Pharm Bull*. 2001 Jul;24(7):838-40.

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