Etilevodopa hydrochloride

Cat. No.: HY-116016A

CAS No.: 39740-30-2

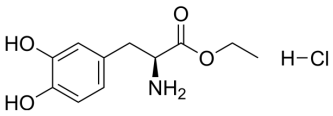
Molecular Formula: $C_{11}H_{16}ClNO_4$

Molecular Weight: 261.7

Target: Dopamine Receptor; Drug Metabolite

Pathway: GPCR/G Protein; Neuronal Signaling; Metabolic Enzyme/Protease

Storage: 4°C, protect from light, stored under nitrogen
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 125 mg/mL (477.65 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	3.8212 mL	19.1058 mL	38.2117 mL
	5 mM	0.7642 mL	3.8212 mL	7.6423 mL
	10 mM	0.3821 mL	1.9106 mL	3.8212 mL

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

In Vivo

1. Add each solvent one by one: PBS
Solubility: 25 mg/mL (95.53 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Etilevodopa (L-Dopa ethyl ester) hydrochloride, an ethyl-ester proagent of Levodopa, is rapidly hydrolyzed to Levodopa and ethanol by nonspecific esterases in the gastrointestinal tract. Etilevodopa hydrochloride is used for the treatment of Parkinson disease (PD). Levodopa is the direct precursor of dopamine and is a suitable proagent as it facilitates CNS penetration and delivers dopamine[1][2][3].

In Vitro

Etilevodopa (L-Dopa ethyl ester) hydrochloride passes unchanged through the stomach to the duodenum, where it is rapidly hydrolyzed by local esterases to Levodopa and ethanol, and is subsequently absorbed into the blood stream as Levodopa[1]. Compared with standard Levodopa, Etilevodopa hydrochloride has greater solubility in the stomach, faster passage to the small intestine, and a shortened time to maximum Levodopa concentration[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Blindauer K, et al. A randomized controlled trial of etilevodopa in patients with Parkinson disease who have motor fluctuations. Arch Neurol. 2006 Feb;63(2):210-6.

[2]. Djaldetti R, et al. Pharmacokinetics of etilevodopa compared to levodopa in patients with Parkinson's disease: an open-label, randomized, crossover study. Clin Neuropharmacol. 2003 Nov-Dec;26(6):322-6.

[3]. Haddad F, et al. Dopamine and Levodopa Prodrugs for the Treatment of Parkinson's Disease. Molecules. 2017 Dec 25;23(1). pii: E40.

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