Bevantolol hydrochloride

Cat. No.: HY-121186

CAS No.: 42864-78-8

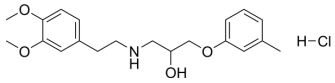
Molecular Formula: $C_{20}H_{28}ClNO_4$

Molecular Weight: 381.89

Target: Adrenergic Receptor; Calcium Channel

Pathway: GPCR/G Protein; Neuronal Signaling; Membrane Transporter/Ion Channel

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 62.5 mg/mL (163.66 mM; Need ultrasonic)
H_2O : 4.55 mg/mL (11.91 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.6186 mL	13.0928 mL	26.1855 mL
5 mM	0.5237 mL	2.6186 mL	5.2371 mL
10 mM	0.2619 mL	1.3093 mL	2.6186 mL

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

In Vivo

1. Add each solvent one by one: PBS
Solubility: 6.25 mg/mL (16.37 mM); Clear solution; Need ultrasonic and warming and heat to 60°C

BIOLOGICAL ACTIVITY

Description

Bevantolol hydrochloride is a selective β1 and α1-adrenergic receptor antagonist with pK_i values of 7.83, 6.9 in rat cerebral cortex, respectively. Bevantolol hydrochloride is a potent Ca^{2+} antagonist[1][2].

IC_{50} & Target

α adrenergic receptor	β adrenergic receptor

In Vitro

Bevantolol hydrochloride has a pK_i of 6.23 for β2-adrenergic receptor[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Bevantolol hydrochloride (200 mg/kg; PO by water; for 6 weeks) produces a significant decrease in the expression level of β1 adrenoceptor mRNA[2].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male Wistar rats weighing 250-300 g[2]
Dosage:	200 mg/kg
Administration:	PO by water; for 6 weeks
Result:	Produced a significant decrease in the expression level of β1 adrenoceptor mRNA.

REFERENCES

[1]. Takahiro Horinouchi, et al. Different Changes of Plasma Membrane Beta-Adrenoceptors in Rat Heart After Chronic Administration of Propranolol, Atenolol and Bevantolol. Life Sci. 2007 Jul 12;81(5):399-404.

[2]. M Takita, et al. Selectivity of Bevantolol Hydrochloride Towards Alpha- And Beta-Adrenoceptor Subtypes in Rat Cerebral Cortex. Jpn J Pharmacol. 1992 Feb;58(2):193-6.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA