Dapiprazole hydrochloride

Cat. No.: HY-A0142A

CAS No.: 72822-13-0

Molecular Formula: $C_{19}H_{28}ClN_5$

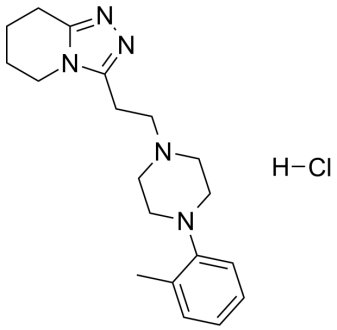
Molecular Weight: 361.91

Target: Adrenergic Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

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

H_2O : 100 mg/mL (276.31 mM; Need ultrasonic)

DMSO : 12.5 mg/mL (34.54 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.7631 mL	13.8156 mL	27.6312 mL
5 mM	0.5526 mL	2.7631 mL	5.5262 mL
10 mM	0.2763 mL	1.3816 mL	2.7631 mL

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

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 50 mg/mL (138.16 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Dapiprazole hydrochloride is a potent, selective and orally active alpha-1 adrenoceptor antagonist. Dapiprazole hydrochloride suppresses the opioid withdrawal symptoms. Dapiprazole hydrochloride is also used as eye drops for reversing mydriasis[1][2][3].

IC_{50} & Target

α1-adrenergic receptor

In Vivo

Dapiprazole hydrochloride (0-10 mg/kg or 0-3 mg/mice; i.p. or i.c.v.; once) reduces the overall severity of the opiate withdrawal symptoms in mice[1].

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

Animal Model:	Swiss Albino male CD-1 mice weighing 20 -25 g, acute dependence model[1]

Dosage:	5, 7.5 and 10 mg/kg (i.p.) or 0.5, 1 and 3 mg/mice (i.c.v.), once
Administration:	Intraperitoneal injection or intracerebroventricular administration, once
Result:	Decreased jumping behavior, head shakes and paw shakes when administered just before naloxone.

REFERENCES

[1]. Valeri P, et al. Effects of dapiprazole, clonidine and yohimbine on the development of dependence and withdrawal behaviour in mice. Drug Alcohol Depend. 1989 Jan;23(1):73-7.

[2]. Allinson RW, et al. Reversal of mydriasis by dapiprazole. Ann Ophthalmol. 1990 Apr;22(4):131-3, 138.

[3]. Hou RH, et al. Arousal and the pupil: why diazepam-induced sedation is not accompanied by miosis. Psychopharmacology (Berl). 2007 Nov;195(1):41-59.

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