Practolol

Cat. No.: HY-119802

CAS No.: 6673-35-4

Molecular Formula: $C_{14}H_{22}N_2O_3$

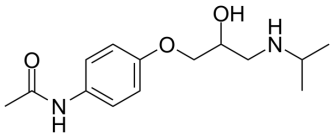
Molecular Weight: 266.34

Target: Adrenergic Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (375.46 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.7546 mL	18.7730 mL	37.5460 mL
5 mM	0.7509 mL	3.7546 mL	7.5092 mL
10 mM	0.3755 mL	1.8773 mL	3.7546 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: ≥ 2.5 mg/mL (9.39 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (9.39 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (9.39 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Practolol is a potent and selective β1-adrenergic receptor antagonist. Practolol can be used for the research of cardiac arrhythmias[1][2][3].

IC_{50} & Target

β1-adrenergic receptor[1]

In Vitro

Practolol (10 μM; 30 min) preferentially antagonizes the relaxant effects produced by R0363 in spontaneously contracted tracheal preparations from the guinea-pig[1].

	Practolol (10 nM-100 μM) blocks the progesterone production induced by (-)epinephrine in a dose-dependent manner in granulosa cells[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Practolol (0.5 mg/kg; i.v.) decreases heart rate, left ventricular dP/dt max, myocardial blood flow and cardiac output in intact close-chest dogs[3]. Practolol (0.5 mg/kg; i.v.) decreases normal myocardial blood flow but flow in the ischaemic area remains unchanged after coronary artery ligation[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Iakovidis D, et, al. In vitro activity of RO363, a beta1-adrenoceptor selective agonist. Br J Pharmacol. 1980 Apr;68(4):677-85.

[2]. Adashi EY, et, al. Stimulation of beta 2-adrenergic responsiveness by follicle-stimulating hormone in rat granulosa cells in vitro and in vivo. Endocrinology. 1981 Jun;108(6):2170-8.

[3]. Marshall RJ, et, al. Comparative effects of propranolol and practolol in the early stages of experimental canine myocardial infarction. Br J Pharmacol. 1976 Jun;57(2):295-303.

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