Alfuzosin hydrochloride

Cat. No.: HY-B0192A

CAS No.: 81403-68-1

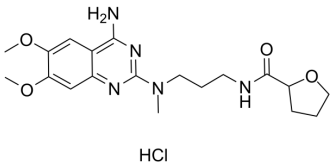
Molecular Formula: $C_{19}H_{28}ClN_5O_4$

Molecular Weight: 425.91

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 : 50 mg/mL (117.40 mM; Need ultrasonic)
DMSO : 25 mg/mL (58.70 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.3479 mL	11.7396 mL	23.4791 mL
5 mM	0.4696 mL	2.3479 mL	4.6958 mL
10 mM	0.2348 mL	1.1740 mL	2.3479 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: ≥ 2.08 mg/mL (4.88 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.88 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.88 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Alfuzosin (SL 77499-10) hydrochloride is an orally active, selective and competitive α1-adrenoceptor antagonist. Alfuzosin hydrochloride relaxes the muscles of the prostate and bladder neck, aiding in urination. Alfuzosin hydrochloride can be used in study of benign prostatic hyperplasia (BPH)[1][2].

In Vivo

Alfuzosin hydrochloride (10 mg/kg, p.o.; single) potently antagonizes phenylephrine-induced increases in urethral and arterial pressures up to 6 hours post dosing[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male Wistar rats (250-450 g)[1].
Dosage:	10 mg/kg
Administration:	Oral administration; single.
Result:	Increased prostatic concentrations to 4.1-8.6 times higher than plasma concentration.

CUSTOMER VALIDATION

- Protein Cell. 2019 Mar;10(3):178-195.

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REFERENCES

[1]. Martin DJ, et al. Relationship between the effects of alfuzosin on rat urethral and blood pressures and its tissue concentrations. Life Sci. 1998;63(3):169-76.

[2]. Wilde MI, et al. Alfuzosin. A review of its pharmacodynamic and pharmacokinetic properties, and therapeutic potential in benign prostatic hyperplasia. Drugs. 1993 Mar;45(3):410-29.

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