# Alfuzosin

**Cat. No.:** HY-B0192

**CAS No.:** 81403-80-7

**Molecular Formula:** $C_{19}H_{27}N_5O_4$

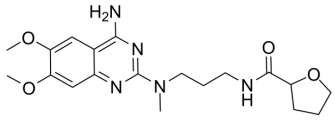
**Molecular Weight:** 389.45

**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 : ≥ 50 mg/mL (128.39 mM)

* "≥" means soluble, but saturation unknown.

**Preparing Stock Solutions**

| Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|
| 1 mM | 2.5677 mL | 12.8387 mL | 25.6773 mL |
| 5 mM | 0.5135 mL | 2.5677 mL | 5.1355 mL |
| 10 mM | 0.2568 mL | 1.2839 mL | 2.5677 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: ≥ 3 mg/mL (7.70 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 3 mg/mL (7.70 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 3 mg/mL (7.70 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

Alfuzosin (SL 77499-10) is an orally active, selective and competitive α1-adrenoceptor antagonist. Alfuzosin relaxes the muscles of the prostate and bladder neck, aiding in urination. Alfuzosin 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.

See more customer validations on www.MedChemExpress.com

## 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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