Data Sheet (Cat.No.T0091)

TargetMol

Alfuzosin hydrochloride

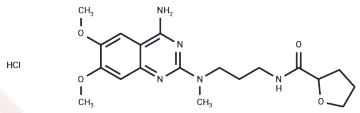
Chemical Properties

CAS No. : 81403-68-1

Formula: C19H27N5O4·HCl

Molecular Weight: 425.91

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	Alfuzosin hydrochloride (Alfuzosin HCl) is an α1 adrenergic receptor antagonist. It applies to treat benign prostatic hyperplasia (BPH).
Targets(IC50)	Adrenergic Receptor
In vitro	Alfuzosin significantly increases whole-cell peak sodium (hNa(v)1.5) current, increases the probability of late hNa(v)1.5 single-channel openings, and significantly shortens the slow time constant for recovery from inactivation. Alfuzosin also increases hNa(v)1.5 burst duration and number of openings per burst between 2- and 3-fold. [1] Alfuzosin shows a concentration-dependent relaxing effect on rabbit corpus cavernosum (CC) pre-contracted by 10 mM phenylephrine. [2]
In vivo	Alfuzosin (300 nM) significantly prolongs action potential duration (APD)(60) in rabbit Purkinje fibers and QT in isolated rabbit hearts. [1] Alfuzosin enhances the number and amplitude of erections induced by apomorphine in spontaneous hypertensive rats (SHR). [3] Alfuzosin behaves as an alpha-adrenergic antagonist blocking the contractions induced by exogenous noradrenaline without altering spikes in both portions of the vas deferens. [4] Alfuzosin (0.03-0.3 mg kg-1, i.v.) markedly inhibits pressor responses produced by the alpha 1-selective agonist, Cirazoline but inhibits only slightly responses to the alpha 2-selective agonist, UK 14,304, in the pithed rat. Alfuzosin (1 mg kg-1, i.v.) has minimal effects against responses mediated by stimulation of prejunctional alpha 2-receptors (UK 14,304-induced inhibition of sympathetic tachycardia). Alfuzosin (0.001-1 mg kg-1, i.v.) and Prazosin (0.001-0.3 mg kg-1, i.v.) produces dose-related inhibition of the increases in urethral pressure caused by stimulation of sympathetic hypogastric nerves in the anaesthetized cat. [5]

Solubility Information

Solubility	DMSO: 65 mg/mL (152.61 mM),Sonication is recommended. H2O: 10.7 mg/mL (25.12 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4.7 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and*

In vivo Formulation	*used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
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	1.174 mL	2.3479 mL
50 mM	0.047 mL	0.2348 mL	0.4696 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Lacerda AE, et al. J Pharmacol Exp Ther,2008, 324(2), 427-433.
Palea S, et al. BJU Int,2003, 91(9), 873-877.
Mayoux E, et al. Eur Urol,2004, 45(1), 110-116.
Tambaro S, et al. J Pharmacol Exp Ther,2005, 312(2), 710-717.
Lefèvre-Borg F, et al. Br J Pharmacol. 1993 Aug;109(4):1282-9.