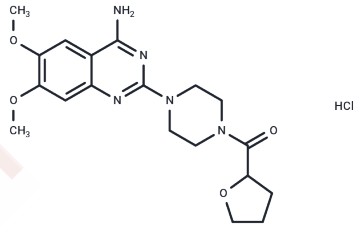
Data Sheet (Cat.No.T0197)

TargetMol

Terazosin hydrochloride

Chemical Properties



CAS No. : 63074-08-8

Formula: C19H26ClN5O4

Molecular Weight: 423.89

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Terazosin hydrochloride (Hytrin) , a selective alpha1-antagonist, can treat the benign prostatic hyperplasia (BPH). It also can lower blood pressure, so it is a drug of choice for patients with prostate enlargement and hypertension. It works on the smooth muscle of the bladder and the blood vessel walls by blocking the function of adrenaline.
Targets(IC50)	Adrenergic Receptor
In vitro	Terazosin induces cytotoxicity in PC-3 and human benign prostatic cells with an IC50 of more than 100 μM. Terazosin also effectively inhibited vascular endothelial growth factor induced proliferation and tube formation in cultured human umbilical vein endothelial cells (IC50 9.9 and 6.8 μM, respectively)[3].
In vivo	Terazosin produces a dose-dependent, complete inhibition of motor activity and catalepsy. Intraventricularly administered this antagonist protects striatal and cerebral cortical alpha 1 receptors but not striatal or cortical D1 receptors from in vivo alkylation by N-ethoxycarbonyl-2-ethoxy-1,2-dihydroxyquinoline. Intraventricular terazosin also produces hypothermia and a reduced respiratory rate suggestive of a reduced sympathetic outflow. Terazosin does not impair performance on a horizontal wire test or the ability to make co-ordinated movements in a swim test[2].Terazosin significantly inhibits vascular endothelial growth factor induced angiogenesis in nude mice with an IC50 of 7.9 μM, showing that it has a more potent anti-angiogenic than cytotoxic effect [3].
Cell Research	To determine the cytotoxic effect mode of action, several identification techniques were used in the current study. Apoptotic cells are detected in situ using terminal deoxynucleotidyl transferase deoxyuridine triphosphate nick end labeling. Results show a positive reaction after a 12-hour treatment of PC-3 cells with terazosin (100 μM). (Only for Reference)

Solubility Information

Solubility	DMSO: 45 mg/mL (106.16 mM),Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), H2O: 1 mg/mL (2.36 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3591 mL	11.7955 mL	23.591 mL
5 mM	0.4718 mL	2.3591 mL	4.7182 mL
10 mM	0.2359 mL	1.1796 mL	2.3591 mL
50 mM	0.0472 mL	0.2359 mL	0.4718 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.

Reference

Robert Papay, et al. Journal of Neurochemistry. 2002, 83:623-634.
Zhang M, Peng Y, Yang Z, et al. DAB2IP down-regulates HSP90AA1 to inhibit the malignant biological behaviors of colorectal cancer. BMC Cancer. 2022, 22(1): 1-15
Stone EA, et al. Neuroscience. 1999, 94(4):1245-52.
Pan SL, et al. J Urol. 2003, 169(2):724-9.