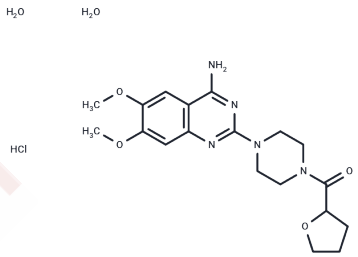
Data Sheet (Cat.No.T6701)

TargetMol

Terazosin hydrochloride dihydrate

Chemical Properties



CAS No. : 70024-40-7

Formula: C19H25N5O4·HCl·2H2O

Molecular Weight: 459.92

Appearance: no data available

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

Biological Description

Description	Terazosin hydrochloride dihydrate (Heitrin dihydrate) is a selective α1-adrenoceptor antagonist, used for treatment of symptoms of an enlarged prostate (BPH).
Targets(IC50)	Adrenergic Receptor
In vitro	Terazosin results in a significant loss of cell viability, via induction of apoptosis in a dose-dependent manner in prostate cancer cells. Terazosin suppresses prostate growth potentially via α 1-adrenoceptor-independent actions gains further support from another study documenting that Doxazosin inhibits proliferation of human vascular smooth muscle cells independently of an antagonistic effect on α1-adrenoceptor. [1] Terazosin blocks HERG currents in Xenopus oocytes with IC50 of 113.2 mM, while Terazosin blocks HERG channel inhibition in human HEK 293 cells with IC50 of 17.7 mM. [2] Terazosin or genistein treatment inhibits the growth of DU-145 cells in a dose-dependent manner, whereas has no effect on normal prostate epithelial cells. Terazosin results in the genistein-induced arrest of DU-145 cells in G2/M phase being overridden and an increase in apoptotic cells, as evidenced by procaspase-3 activation and PARP cleavage. [3] Terazosin induces cytotoxicity in PC-3 and human benign prostatic cells with an IC50 of more than 100 mM. [4]
In vivo	Terazosin significantly inhibits vascular endothelial growth factor induced angiogenesis in nude mice with an IC50 of 7.9 mM, showing that it has a more potent anti-angiogenic than cytotoxic effect. Terazosin also effectively inhibits vascular endothelial growth factor induced proliferation and tube formation in cultured human umbilical vein endothelial cells (IC50 9.9 and 6.8 mM, respectively). [4]

Solubility Information

Solubility	DMSO: 25 mg/mL (54.36 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1743 mL	10.8715 mL	21.7429 mL
5 mM	0.4349 mL	2.1743 mL	4.3486 mL
10 mM	0.2174 mL	1.0871 mL	2.1743 mL
50 mM	0.0435 mL	0.2174 mL	0.4349 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

Kyprianou N, et al. Cancer Res. 2000 Aug 15;60(16):4550-5.
Thomas D, et al. Naunyn Schmiedebergs Arch Pharmacol,2004, 369(5), 462-472.
Chang KL, et al. Cancer Lett. 2009 Apr 8;276(1):14-20.
Pan SL, et al. J Urol,2003, 169(2), 724-729.