(R)-Terazosin

Cat. No.: HY-B0371B

CAS No.: 109351-34-0

Molecular Formula: $C_{19}H_{25}N_5O_4$

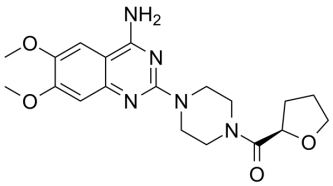
Molecular Weight: 387.43

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 : 75 mg/mL (193.58 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.5811 mL	12.9056 mL	25.8111 mL
5 mM	0.5162 mL	2.5811 mL	5.1622 mL
10 mM	0.2581 mL	1.2906 mL	2.5811 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: ≥ 7.5 mg/mL (19.36 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 7.5 mg/mL (19.36 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 7.5 mg/mL (19.36 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

(R)-Terazosin is an active R-enantiomer of Terazosin. (R)-Terazosin is a potent α1-adrenoceptor antagonist with K_i values of 6.51 nM, 1.01 nM and 1.97 nM for α1a, α1b and α1d-adrenoceptor, respectively[1].

IC_{50} & Target

Ki: 6.51 nM (α1a-adrenoceptor), 1.01 nM (α1b-adrenoceptor) and 1.97 nM (α1d-adrenoceptor)[1]

In Vitro

(R)-Terazosin is low affinity for α2a, α2B and α2c-adrenoceptor with K_i values of 3.85 μM, 0.33 μM and 0.37 μM, respectively[1]
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	(R)-Terazosin may prove to be a useful probe in understanding the functional role of subtypes of adrenoceptors in various tissues. Because it is a weaker antagonist at α2B sites than its enantiomer, it may be possible to use (R)-Terazosin to differentiate between pharmacological effects mediated by subtypes of α2-adrenoceptors in animal studies[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	(R)-Terazosin shows antagonism of at rat atrial α2B receptor with a pEC_{30} of 5.69. (R)-Terazosin shows antagonism of at rat vas deferens α1A and α2A receptor with pA_2 values of 7.5 and 5.31, respectively[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Hancock AA, et al. Actions of terazosin and its enantiomers at subtypes of alpha 1- and alpha 2-adrenoceptors in vitro. J Recept Signal Transduct Res. 1995 Sep-Dec;15(7-8):863-85.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA