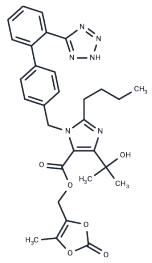
Data Sheet (Cat.No.T1518)

TargetMol

Olmesartan Medoxomil

Chemical Properties



CAS No. : 144689-63-4

Formula: C29H30N6O6

Molecular Weight: 558.59

Appearance: no data available

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

Biological Description

Description	Olmesartan Medoxomil (Benicar) is an angiotensin II type 1 receptor blocker that is used to manage hypertension.
Targets(IC50)	RAAS
In vitro	Olmesartan Medoxomil significantly reduces liver hydroxyproline content, the mRNA expression of collagen alpha1(I) and alpha-smooth muscle actin (alpha-SMA), and plasma levels of transforming growth factor-beta1 (TGF-beta1). [1] Olmesartan Medoxomil is a pro-drug containing an ester moiety that, after oral administration, is rapidly cleaved to release the active form Olmesartan (RNH-6270). Olmesartan is a highly potent, competitive and selective All AT1 receptor antagonist with almost no antagonistic activity on AT2 and AT4 receptors. [2]
In vivo	Olmesartan produces a rapid and long-lasting inhibition of All-induced pressor responses in conscious rats. Oralolmesartan medoxomil also inhibits All-pressor response but onset of the action is slower compared with intravenous administration. Olmesartan Medoxomil exhibits dose-dependent antihypertensive effects in several rat and dog models, with the most marked effects seen in high plasma renin models, when compared with normal or low renin types. Olmesartan medoxomil exhibits, beside antihypertensive effects, beneficial effects in animal models of various types of nephrosis and heart failure, and anti-atherogenic effects in hyperlipidaemic animals. [2] Olmesartan Medoxomil dose-dependently ameliorates the colonic histopathological and biochemical injuries in rats, an effect that is comparable or even better than that of the standard Sulfasalazine. [3] Olmesartan medoxomil significantly reduces the induction of hypoxic cor pulmonale not only on echocardiographical observations but also in brain natriuretic peptide (BNP) in chronic hypoxic rats, TGF-beta and endothelin gene expressions in molecular studies. [4]

Solubility Information

Solubility	Ethanol: < 1 mg/mL (insoluble or slightly soluble), H2O: < 1 mg/mL (insoluble or slightly soluble), DMSO: 50 mg/mL (89.51 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.7902 mL	8.9511 mL	17.9022 mL
5 mM	0.358 mL	1.7902 mL	3.5804 mL
10 mM	0.179 mL	0.8951 mL	1.7902 mL
50 mM	0.0358 mL	0.179 mL	0.358 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

Kurikawa N, et al. Br J Pharmacol,2003, 139(6), 1085-1094.
Koike H, et al. J Hypertens Suppl,2001,9(1), S3-14.
Nagib MM, et al. Toxicol Appl Pharmacol,2013, 271(1), 106-113.
Nakamoto T, et al. Eur J Pharmacol,2005, 528(1-3), 43-51.
Gu J, et al. Olmesartan Prevents Microalbuminuria in db/db Diabetic Mice Through Inhibition of Angiotensin II/p38/SIRT1-Induced Podocyte Apoptosis. Kidney Blood Press Res. 2016 Nov 21;41(6):848-864.