Allisartan isoproxil

Cat. No.: HY-111032

CAS No.: 947331-05-7

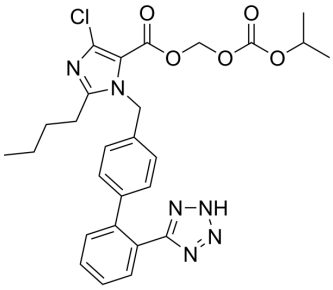
Molecular Formula: $C_{27}H_{29}ClN_6O_5$

Molecular Weight: 553.01

Target: Angiotensin Receptor

Pathway: GPCR/G Protein

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (180.83 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	1.8083 mL	9.0414 mL	18.0829 mL
	5 mM	0.3617 mL	1.8083 mL	3.6166 mL
	10 mM	0.1808 mL	0.9041 mL	1.8083 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: ≥ 2.5 mg/mL (4.52 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.52 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Allisartan isoproxil (ALS-3) is an orally potent, selective, non-peptide inhibitor of Angiotensin II Type 1. Allisartan isoproxil is also an antihypertensive agent. Allisartan isoproxil may inhibit angiotensin-aldosterone system and oxidative stress. Allisartan isoproxil lowers blood pressure and protects the organs, preventing cerebrovascular damage. Allisartan isoproxil (80-320 mg/kg/d) has shown toxicity in rat models by targeting liver organs[1][2].

IC_{50} & Target

Angiotensin II Type 1

In Vivo

The metabolic pathway of Allisartan isoproxil is relatively simple, and Allisartan isoproxil is completely and directly converted to EXP-3174 by esterase during gastrointestinal absorption[1].

Allisartan isoproxil (20, 80 and 320 mg/kg/day; po; for 26 weeks) decreases body weight at 80-320 mg/kg/day dose, in Sprague-Dawley rats[1].

Allisartan isoproxil (30 mg/kg/day; po in diet; for 55 weeks) significantly decreases stroke-related death and prolongs lifespan in stroke-prone renovascular hypertensive rats (RHR-SP)[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Femal and male Sprague-Dawley rats[1]
Dosage:	20, 80 and 320 mg/kg
Administration:	
Result:	Decreased body-weight gain at 320 mg/kg/day in both sexes as well as at the 80-mg/kg/day dose in females. Decreased erythrocyte parameters in males, and decreased heart weight and exacerbation of chronic progressive nephropathy (CPN) severity in males at 80 and 320 mg/kg/day.

REFERENCES

[1]. Liu Y, et al. A 26-week repeated-dose toxicity study of allisartan isoproxil in Sprague-Dawley rats. Drug Chem Toxicol. 2013 Oct;36(4):443-50.

[2]. Ling QS, et al. Allisartan isoproxil reduces mortality of stroke-prone rats and protects against cerebrovascular, cardiac, and aortic damage. Acta Pharmacol Sin. 2021 Jun;42(6):871-884.

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