Buloxibutid

Cat. No.: HY-100113

CAS No.: 477775-14-7

Molecular Formula: $C_{23}H_{29}N_3O_4S_2$

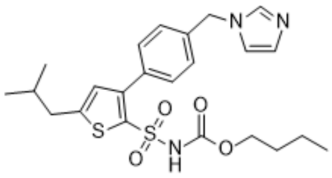
Molecular Weight: 475.62

Target: Angiotensin Receptor

Pathway: GPCR/G Protein

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (210.25 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.1025 mL	10.5126 mL	21.0252 mL
	5 mM	0.4205 mL	2.1025 mL	4.2050 mL
	10 mM	0.2103 mL	1.0513 mL	2.1025 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: ≥ 2.08 mg/mL (4.37 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (4.37 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.37 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Buloxibutid (AT2 receptor agonist C21) is a agentlike selective angiotensin II AT2 receptor agonist with K_i values of 0.4 nM and >10 μM for the AT2 receptor and AT1 receptor, respectively[1].

IC_{50} & Target

AT2 Receptor	AT1 Receptor
0.4 nM (Ki)	>10 μM (Ki)

In Vivo

Buloxibutid, with a bioavailability of 20-30% after oral administration and a half-life estimated to 4 h in rat, induces outgrowth of neurite cells, stimulates p42/p44mapk, enhances in vivo duodenal alkaline secretion in Sprague-Dawley rats,

and lowers the mean arterial blood pressure in anesthetized, spontaneously hypertensive rats[1].

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

CUSTOMER VALIDATION

- Clin Sci. 2022 Jun 13;CS20220236.
- Eur J Pharmacol. 2022 Dec 14;175466.

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REFERENCES

[1]. Wan Y, et al. Design, synthesis, and biological evaluation of the first selective nonpeptide AT2 receptor agonist. J Med Chem. 2004 Nov 18;47(24):5995-6008.

[2]. Schwengel K, Namsolleck P, Lucht K, et al. Angiotensin AT2-receptor stimulation improves survival and neurological outcome after experimental stroke in mice. J Mol Med (Berl). 2016;94(8):957-966.

[3]. Fatima N, Patel S, Hussain T. Angiotensin AT2 Receptor is Anti-inflammatory and Reno-Protective in Lipopolysaccharide Mice Model: Role of IL-10. Front Pharmacol. 2021;12:600163.

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