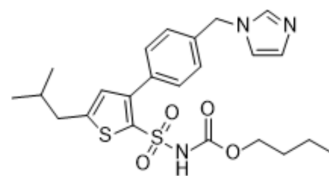


Buloxibutid

Cat. No.:	HY-100113		
CAS No.:	477775-14-7		
Molecular Formula:	C ₂₃ H ₂₉ N ₃ O ₄ S 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	Solvent Concentration	Mass	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 0.4 nM (K _i)	AT1 Receptor >10 μM (K _i)
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.
- Dokkyo Medical Journal. 2023 Sep 8.

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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.
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Caution: Product has not been fully validated for medical applications. For research use only.

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