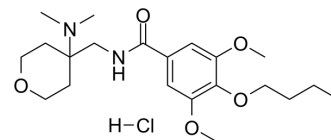


Opiranserin hydrochloride

Cat. No.:	HY-109067A		
CAS No.:	1440796-75-7		
Molecular Formula:	C ₂₁ H ₃₅ ClN ₂ O ₅		
Molecular Weight:	430.97		
Target:	GlyT; 5-HT Receptor; P2X Receptor		
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling; GPCR/G Protein		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro	DMSO : 50 mg/mL (116.02 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.3203 mL	11.6017 mL	23.2035 mL
		5 mM	0.4641 mL	2.3203 mL	4.6407 mL
10 mM		0.2320 mL	1.1602 mL	2.3203 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (5.80 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (5.80 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (5.80 mM); Clear solution 				

BIOLOGICAL ACTIVITY

Description	Opiranserin (VZ-149) hydrochloride, a non-opioid and non-NSAID analgesic candidate, is a dual antagonist of glycine transporter type 2 (GlyT2) and serotonin receptor 2A (5HT _{2A}), with IC ₅₀ s of 0.86 and 1.3 μM, respectively. Opiranserin hydrochloride shows antagonistic activity on rP2X ₃ (IC ₅₀ =0.87 μM). Opiranserin hydrochloride is development as an injectable agent for the treatment of postoperative pain ^{[1][2][3]} .		
IC₅₀ & Target	GlyT2 0.86 μM (IC ₅₀)	rP2X ₃ 0.87 μM (IC ₅₀)	5-HT _{2A} Receptor 1.3 μM (IC ₅₀)

REFERENCES

- [1]. Oh J, et al. Safety, Tolerability, and Pharmacokinetic Characteristics of a Novel Nonopioid Analgesic, WZ-149 Injections in Healthy Volunteers: A First-in-Class, First-in-Human Study. *J Clin Pharmacol*. 2018 Jan;58(1):64-73.
- [2]. Nedeljkovic SS, et al. Randomised, double-blind, parallel group, placebo-controlled study to evaluate the analgesic efficacy and safety of WZ-149 injections for postoperative pain following laparoscopic colorectal surgery. *BMJ Open*. 2017 Feb 17;7(2):e011035.
- [3]. Pang MH, et al. A series of case studies: practical methodology for identifying antinociceptive multi-target drugs. *Drug Discov Today*. 2012 May;17(9-10):425-34.
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Caution: Product has not been fully validated for medical applications. For research use only.

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