

# **Data Sheet**

Product Name: Opiranserin (hydrochloride)

 Cat. No.:
 CS-0459996

 CAS No.:
 1440796-75-7 

 Molecular Formula:
  $C_{21}H_{35}CIN_2O_5$ 

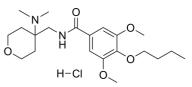
Molecular Weight: 430.97

Target: 5-HT Receptor; GlyT; P2X Receptor

Pathway: GPCR/G Protein; Membrane Transporter/Ion Channel;

**Neuronal Signaling** 

**Solubility:** DMSO : 50 mg/mL (ultrasonic)



## **BIOLOGICAL ACTIVITY:**

Opiranserin (VVZ-149) hydrochloride, a non-opioid and non-NSAID analgesic candidate, is a dual antagonist of **glycine transporter type 2 (GlyT2)** and **serotonin receptor 2A (5HT2A)**, with **IC**<sub>50</sub>s of 0.86 and 1.3  $\mu$ M, respectively. Opiranserin hydrochloride shows antagonistic activity on rP2X3 (IC<sub>50</sub>=0.87  $\mu$ M). Opiranserin hydrochloride is development as an injectable agent for the treatment of postoperative pain[1][2][3].

## References:

- [1]. Oh J, et al. Safety, Tolerability, and Pharmacokinetic Characteristics of a Novel Nonopioid Analgesic, VVZ-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 VVZ-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.

### **CAIndexNames:**

Benzamide, 4-butoxy-N-[[4-(dimethylamino)tetrahydro-2H-pyran-4-yl]methyl]-3,5-dimethoxy-, hydrochloride (1:1)

#### **SMILES:**

O=C(C1=CC(OC)=C(OCCCC)C(OC)=C1)NCC2(CCOCC2)N(C)C.[H]CI

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

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