

# A 438079 (hydrochloride)

Catalog No: tcsc1292



## Available Sizes

**Size:** 10mg

**Size:** 50mg



## Specifications

**CAS No:**

899431-18-6

**Formula:**

$C_{13}H_{10}Cl_3N_5$

**Pathway:**

Membrane Transporter/Ion Channel

**Target:**

P2X Receptor

**Purity / Grade:**

>98%

**Solubility:**

H<sub>2</sub>O : ≥ 350 mg/mL (1021.57 mM)

**Observed Molecular Weight:**

342.61

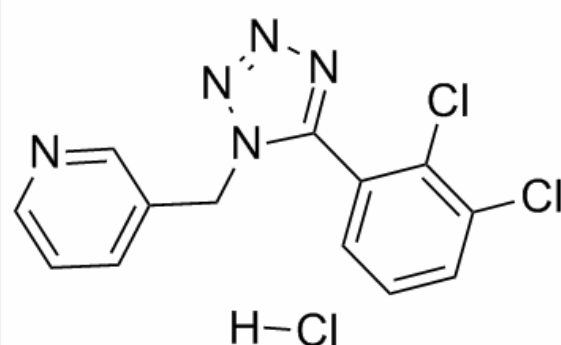
## Product Description

A 438079 (hydrochloride) is a potent, and selective **P2X<sub>7</sub> receptor** antagonist with pIC<sub>50</sub> of 6.9.

IC<sub>50</sub> & Target: pIC<sub>50</sub>: 6.9

**In Vitro:** In 1321N1 cells stably expressing rat P2X<sub>7</sub> receptors, A 438079 blocks BzATP-(10 μM) evoked changes in intracellular calcium concentrations with an IC<sub>50</sub> of 321 nM. A 438079 is also selective for the P2X<sub>7</sub> receptor, at concentrations up to 100 μM<sup>[1]</sup>.

**In Vivo:** A 438079 (80  $\mu\text{mol/kg}$ , i.v.) reduces noxious and innocuous evoked activity of different classes of spinal neurons in neuropathic rats. A 438079 (100 and 300  $\mu\text{mol/kg}$ , i.p.) significantly raises withdrawal thresh-olds in both the SNL and CCI models<sup>[1]</sup>. Intraperitoneal injection of A 438079 (5 and 15 mg/kg) 60 min after triggering seizures reduces seizure severity and neuronal death within the hippocampus. A 438079 has superior neuroprotective effects compared with an equally dose of phenobarbital (25 mg/kg) <sup>[2]</sup>. A 438079 partially but significantly prevents the 6-OHDA-induced depletion of striatal DA stores<sup>[3]</sup>. Pretreatment with A 438079 reduces nociceptive behaviour scores in the HC model<sup>[4]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!