

# Asenapine (hydrochloride)

Catalog No: tcsc1053



## Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg



## Specifications

**CAS No:**

1412458-61-7

**Formula:**

$C_{17}H_{17}Cl_2NO$

**Pathway:**

GPCR/G Protein;Neuronal Signaling;Neuronal Signaling;GPCR/G Protein

**Target:**

Dopamine Receptor;Dopamine Receptor;5-HT Receptor;5-HT Receptor

**Purity / Grade:**

>98%

**Solubility:**

DMSO : 50 mg/mL (155.17 mM; Need ultrasonic)

**Observed Molecular Weight:**

322.23

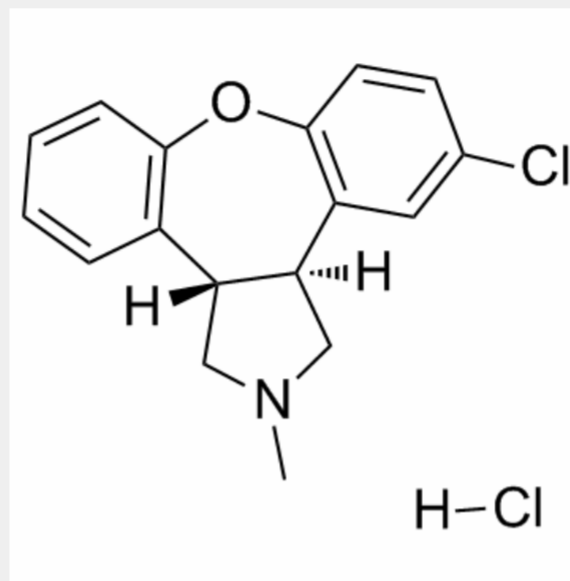
## Product Description

Asenapine maleate, an antipsychotic, is a **5-HT** (1A, 1B, 2A, 2B, 2C, 5A, 6, 7) and **Dopamine (D<sub>2</sub>, D<sub>3</sub>, D<sub>4</sub>)** receptor antagonist with  $K_i$  values of 0.03-4.0 nM for 5-HT and 1.3, 0.42, 1.1 nM for Dopamine receptor, respectively.

**In Vitro:**

Relative to its D2 receptor affinity, Asenapine has a higher affinity for 5-HT<sub>2C</sub>, 5-HT<sub>2A</sub>, 5-HT<sub>2B</sub>, 5-HT<sub>7</sub>, 5-HT<sub>6</sub>, α<sub>2B</sub> and D3 receptors, suggesting stronger engagement of these targets at therapeutic doses. Asenapine behaves as a potent antagonist (pK<sub>B</sub>) at 5-HT<sub>1A</sub> (7.4), 5-HT<sub>1B</sub> (8.1), 5-HT<sub>2A</sub> (9.0), 5-HT<sub>2B</sub> (9.3), 5-HT<sub>2C</sub> (9.0), 5-HT<sub>6</sub> (8.0), 5-HT<sub>7</sub> (8.5), D2 (9.1), D3 (9.1), α<sub>2A</sub> (7.3), α<sub>2B</sub> (8.3), α<sub>2C</sub> (6.8) and H1 (8.4) receptors<sup>[2]</sup>.

**In Vivo:** Asenapine is an atypical antipsychotic that is currently available for the treatment of schizophrenia and bipolar I disorder. Asenapine may have superior therapeutic effect on anxiety symptoms than other agents in rats<sup>[3]</sup>. Asenapine has anxiolytic-like effects in the EPM and the defensive marble burying tests in mice<sup>[4]</sup>.



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