

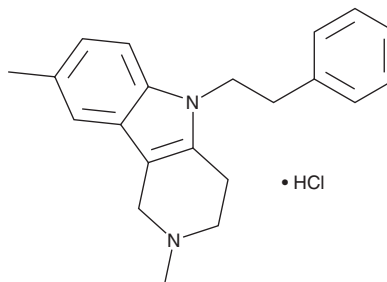
# PRODUCT INFORMATION



## AVN-101 (hydrochloride)

Item No. 38791

**CAS Registry No.:** 1061354-48-0  
**Formal Name:** 2,3,4,5-tetrahydro-2,8-dimethyl-5-(2-phenylethyl)-1H-pyrido[4,3-b]indole, monohydrochloride  
**MF:**  $C_{21}H_{24}N_2 \cdot HCl$   
**FW:** 340.9  
**Purity:**  $\geq 98\%$   
**UV/Vis.:**  $\lambda_{max}$ : 227 nm  
**Supplied as:** A crystalline solid  
**Storage:**  $-20^{\circ}C$   
**Stability:**  $\geq 4$  years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

AVN-101 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the AVN-101 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. AVN-101 (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of AVN-101 (hydrochloride) in these solvents is approximately 1, 5, and 10 mg/ml, respectively.

### Description

AVN-101 is a multimodal receptor antagonist.<sup>1</sup> It is an antagonist of the serotonin (5-HT) receptor subtypes 5-HT<sub>7</sub>, 5-HT<sub>2C</sub>, 5-HT<sub>2A</sub>, and 5-HT<sub>6</sub> ( $K_i$ s = 0.153, 1.17, 1.56, and 2.04 nM, respectively). It is selective for these receptors over 5-HT<sub>2B</sub>, 5-HT<sub>5A</sub>, 5-HT<sub>1A</sub>, and 5-HT<sub>1B</sub> receptors ( $K_i$ s = 10.6, 20.8, 61, and 720 nM, respectively). It is also an antagonist of  $\alpha_{2A}$ ,  $\alpha_{2B}$ ,  $\alpha_{2C}$ ,  $\alpha_{1B}$ ,  $\alpha_{1A}$ , and  $\alpha_{1D}$ -adrenergic receptors ( $K_i$ s = 0.41, 1.77, 3.55, 9.4, 18.9, and 30.2 nM, respectively), as well as histamine H<sub>1</sub> and H<sub>2</sub> ( $K_i$ s = 0.58 and 89 nM, respectively), but not H<sub>3</sub> receptors. AVN-101 (0.2, 1, and 5 mg/kg) increases the time spent in the open arms of the elevated plus maze in mice. It also reduces immobility in the forced swim test and prevents scopolamine-induced amnesia in a passive avoidance test in mice when administered at a dose of 0.05 mg/kg.

### Reference

1. Ivachtchenko, A.V., Lavrovsky, Y., and Okun, I. AVN-101: A multi-target drug candidate for the treatment of CNS disorders. *J. Alzheimers Dis.* **53**(2), (2016).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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