

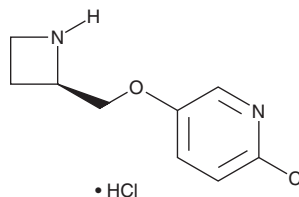
# PRODUCT INFORMATION



## ABT-594

Item No. 22822

**CAS Registry No.:** 203564-54-9  
**Formal Name:** 5-[(2R)-2-azetidylmethoxy]-2-chloro-pyridine, monohydrochloride  
**Synonyms:** Ebanicline, Tebanicline  
**MF:** C<sub>9</sub>H<sub>11</sub>ClN<sub>2</sub>O • HCl  
**FW:** 235.1  
**Purity:** ≥95%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



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

### Laboratory Procedures

ABT-594 is supplied as a solid. A stock solution may be made by dissolving the ABT-594 in the solvent of choice, which should be purged with an inert gas. ABT-594 is soluble in the organic solvent DMSO.

### Description

ABT-594 is a potent agonist of neuronal  $\alpha 4\beta 2$  subunit-containing nicotinic acetylcholine receptors (nAChRs;  $K_i = 37$  pM in a radioligand binding assay).<sup>1</sup> It is selective for neuronal nAChRs over neuromuscular  $\alpha 1\beta 1\delta\gamma$  subunit-containing nAChRs ( $K_i = 10,000$  nM),  $\alpha_{1B}$ ,  $\alpha_{2B}$ , and  $\alpha_{2C}$ -adrenergic receptors ( $K_i$ s = 890, 597, and 342 nM, respectively), and 70 other receptors, enzymes, and transporters ( $K_i$ s = >1,000 nM) in radioligand binding assays. ABT-594 induces [<sup>86</sup>Rb<sup>+</sup>] efflux in K177 cells transfected with human neuronal  $\alpha 4\beta 2$  subunit-containing nAChRs ( $EC_{50} = 140$  nM). *In vivo*, ABT-594 (0.05 and 0.01 mg/kg, s.c.) increases latency to paw withdrawal in a hot-plate test in rats.<sup>2</sup> It also induces hypothermia, seizures, and an increase in blood pressure.

### References

1. Donnelly-Roberts, D.L., Puttfarcken, P.S., Kuntzweiler, T.A., *et al.* ABT-594 [(R)-5-(2-azetidylmethoxy)-2-chloropyridine]: A novel, orally effective analgesic acting via neuronal nicotinic acetylcholine receptors: I. *In vitro* characterization. *J. Pharmacol. Exp. Ther.* **285**(2), 777-786 (1998).
2. Boyce, S., Webb, J.K., Shephard, S.L., *et al.* Analgesic and toxic effects of ABT-594 resemble epibatidine and nicotine in rats. *Pain* **85**(3), 443-450 (2000).

#### 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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