

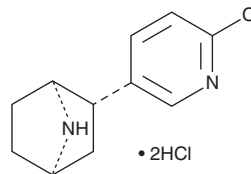
# PRODUCT INFORMATION



## (±)-Epibatidine (hydrochloride)

Item No. 31193

CAS Registry No.: 162885-01-0  
Formal Name: (1R,2R,4S)-rel-2-(6-chloro-3-pyridinyl)-7-azabicyclo[2.2.1]heptane, dihydrochloride  
MF: C<sub>11</sub>H<sub>13</sub>ClN<sub>2</sub> • 2HCl  
FW: 281.6  
Purity: ≥98%  
UV/Vis.: λ<sub>max</sub>: 215, 270 nm  
Supplied as: A solid  
Storage: -20°C  
Stability: ≥4 years  
Item Origin: Synthetic



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

### Laboratory Procedures

(±)-Epibatidine (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the (±)-epibatidine (hydrochloride) in the solvent of choice, which should be purged with an inert gas. (±)-Epibatidine (hydrochloride) is soluble in the organic solvent DMSO.

### Description

(±)-Epibatidine is an alkaloid that has been found in Ecuadoran poison frog (*E. tricolor*) skin extracts and an agonist of  $\alpha 4\beta 2$  subunit-containing nicotinic acetylcholine receptors (nAChRs;  $K_i = 43$  pM).<sup>1,2</sup> It is selective for  $\alpha 4\beta 2$  subunit-containing nAChRs over  $\alpha 7$  nAChRs ( $K_i = 230$  nM).<sup>1</sup> (±)-Epibatidine enhances  $^{86}\text{Rb}^+$  flux in IMR-32 cells ( $\text{EC}_{50} = 7$  nM) and induces dopamine release from rat striatal slices ( $\text{EC}_{50} = 0.4$  nM), effects that can be reduced by the nAChR antagonist mecamylamine (Item No. 14602). *In vivo*, (±)-epibatidine induces analgesia in the hot plate test and the Straub-tail response in mice ( $\text{ED}_{50}\text{s} = 0.005$  and  $0.02$  mg/kg, respectively).<sup>2</sup>

### References

1. Sullivan, J.P., Decker, M.W., Brioni, J.D., et al. (+/-)-Epibatidine elicits a diversity of in vitro and in vivo effects mediated by nicotinic acetylcholine receptors. *J. Pharmacol. Exp. Ther.* **271**(2), 624-631 (1994).
2. Spande, T.F., Garraffo, H.M., Edwards, M.W., et al. Epibatidine: A novel (chloropyridyl)azabicycloheptane with potent analgesic activity from an Ecuadoran poison frog. *J. Am. Chem. Soc.* **114**(9), 3475-3478 (1992).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

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