

Product Information

Cat. No. A-224

(+)-ANATOXIN-A FUMARATE

(+)-ANTX-A FUMARATE

Potent nicotinic acetylcholine receptor agonist; isolated from the blue-green freshwater algae *Anabaena flos-aquae*.

Mol. Formula: C₁₀H₁₅NOC₄H₄O₄

Mol. Wt.: 281.31 (anhyd.)

mp: 124-126° C (dec.)

CAS Registry No: 64285-06-9 (free base)

Chemical Name: (1R)-1-(9-Azabicyclo[4.2.1]non-2-en-2-yl)-ethanone fumarate

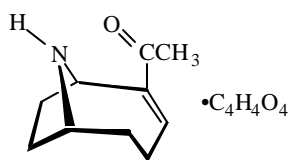
Physical Properties: Light brown hygroscopic solid. $[\alpha]_{D}^{20} = +28^{\circ}$ (c = 0.29, MeOH).

Caution: POTENT NEUROTOXIN. Wear gloves and mask when handling this product. Avoid contact by all modes of exposure. RTECS No. KM5527000.

Storage: Store desiccated at 4 °C.

Solubility: Soluble in water (15 mg/ml).

Disposal: Dissolve or mix the compound with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. This substance is toxic to humans and all precautions must be taken to avoid ingestion by any route, skin contact or inhalation of fumes during the destruction process.



References:

1. Zhang, X, Nordberg, A. "The competition of (-)-[³H]nicotine binding by the enantiomers of nicotine, normnicotine and anatoxin-a in membranes and solubilized preparations of different brain regions of rat." *Naunyn-Schmied. Arch. Pharmacol.* **348**, 28-34 (1993).
2. Amar, M., Thomas, P., Johnson, C., Lunt, G.G., Wonnacott, S. "Agonist pharmacology of neuronal alpha 7 nicotinic receptor expressed in *Xenopus* oocytes." *FEBS Lett.* **327**, 284-288 (1993).
3. Thomas, P., Stephens, M., Wilkie G., Amar, M., Lunt, G.G., Whiting P., Gallagher, T., Pereira, E., Alkondon, M., Albuquerque, E.X. et al. "(+)-Anatoxin-a is a potent agonist at neuronal acetylcholine receptors." *J. Neurochem.* **60**, 2308-2311 (1993).
4. Stolerman, I.P., Albuquerque, E.X., Garcha, H.S. "Behavioral effects of anatoxin, a potent nicotinic agonist, in rats." *Neuropharmacology* **31**, 304-311 (1992).