

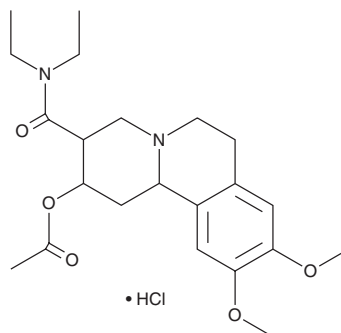
# PRODUCT INFORMATION



## Benzquinamide (hydrochloride)

Item No. 41713

**CAS Registry No.:** 113-69-9  
**Formal Name:** 2-(acetyloxy)-N,N-diethyl-1,3,4,6,7,11b-hexahydro-9,10-dimethoxy-2H-benzo[a]quinolizine-3-carboxamide, monohydrochloride  
**MF:** C<sub>22</sub>H<sub>32</sub>N<sub>2</sub>O<sub>5</sub> • HCl  
**FW:** 441.0  
**Purity:** ≥98%  
**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

Benzquinamide (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the benzquinamide (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Benzquinamide (hydrochloride) is sparingly soluble (1-10 mg/ml) in DMSO and slightly soluble (0.1-1 mg/ml) in acetonitrile.

### Description

Benzquinamide is an antiemetic and antagonist of dopamine D<sub>2</sub><sup>-</sup>, D<sub>4</sub><sup>-</sup>, and D<sub>3</sub> receptors (K<sub>s</sub> = 4,369, 574, and 3,592 nM, respectively).<sup>1</sup> It is also an antagonist of α<sub>2</sub>-adrenergic receptors (α<sub>2</sub>-ARs; K<sub>s</sub> = 1,365, 691, and 545 nM for α<sub>2A</sub><sup>-</sup>, α<sub>2B</sub><sup>-</sup>, and α<sub>2C</sub>-AR, respectively). Benzquinamide has been mistakenly identified as an antagonist of histamine H<sub>1</sub> receptors and M<sub>1-5</sub> muscarinic acetylcholine receptors (mAChRs). It inhibits conditioned avoidance in the shuttle box test in dogs (ED<sub>50</sub> = 2.77 mg/kg).<sup>2</sup> Benzquinamide inhibits apomorphine-induced emesis in dogs (ED<sub>50</sub> = 0.69 mg/kg). It induces tachycardia, increases blood levels of norepinephrine, and temporarily decreases systolic and diastolic blood pressure, which revert to baseline within one minute, in normotensive dogs when administered at doses ranging from 0.5 to 5 mg/kg.<sup>3</sup> Formulations containing benzquinamide have previously been used as antiemetics following surgery or anesthesia.

### References

1. Gregori-Puigjané, E., Setola, V., Hert, J., *et al.* Identifying mechanism-of-action targets for drugs and probes. *Proc. Natl. Acad. Sci. USA* **109**(28), 11178-11183 (2012).
2. Niemegeers, C.J.E. Antiemetic specificity of dopamine antagonists. *Psychopharmacology (Berl.)* **78**(3), 210-213 (1982).
3. Smith, D.J., Rushin, J.M., Urquilla, P.R., *et al.* Cardiovascular effects of benzquinamide. *Anesth. Analg.* **58**(3), 189-194 (1979).

#### 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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