

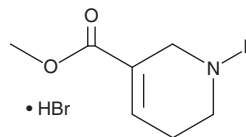
PRODUCT INFORMATION



Guvacoline (hydrobromide)

Item No. 17190

CAS Registry No.: 17210-51-4
Formal Name: 1,2,5,6-tetrahydro-3-pyridinecarboxylic acid, methyl ester, monohydrobromide
Synonym: Norarecoline
MF: C₇H₁₁NO₂ • HBr
FW: 222.1
Purity: ≥98%
Supplied as: A crystalline 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

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

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of guvacoline (hydrobromide) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of guvacoline (hydrobromide) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Guvacoline is a natural alkaloid found in areca nuts that is related to the nootropic, arecoline (Item No. 13662). Guvacoline can act as a full agonist of atrial and ileal muscarinic receptors, although at 15-fold reduced potency compared to arecoline.¹ The metabolomics and toxicity of this compound have been reported.^{2,3}

References

1. Wolf-Pflugmann, M., Lambrecht, G., Wess, J., *et al.* Synthesis and muscarinic activity of a series of tertiary and quaternary N-substituted guvacine esters structurally related to arecoline and arecaine propargyl ester. *Arzneimittelforschung* **39**(5), 539-544 (1989).
2. Giri, S., Idle, J.R., Chen, C., *et al.* A metabolomic approach to the metabolism of the areca nut alkaloids arecoline and arecaine in the mouse. *Chem. Res. Toxicol.* **19**(6), 818-827 (2006).
3. Sundqvist, K., Liu, Y., Nair, J., *et al.* Cytotoxic and genotoxic effects of areca nut-related compounds in cultured human buccal epithelial cells. *Cancer Res.* **49**(19), 5294-5298 (1989).

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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