

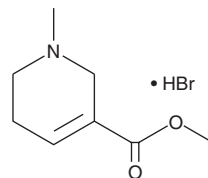
PRODUCT INFORMATION



Arecoline (hydrobromide)

Item No. 13662

CAS Registry No.: 300-08-3
Formal Name: 1,2,5,6-tetrahydro-1-methyl-3-pyridinecarboxylic acid, methyl ester, monohydrobromide
MF: C₈H₁₃NO₂ • HBr
FW: 236.1
Purity: ≥95%
Supplied as: A crystalline 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

Arecoline (hydrobromide) is supplied as a crystalline solid. A stock solution may be made by dissolving the arecoline (hydrobromide) in the solvent of choice. Arecoline (hydrobromide) is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of arecoline (hydrobromide) in these solvents is approximately 3 mg/ml in DMSO and approximately 1 mg/ml in DMF.

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 arecoline (hydrobromide) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of arecoline (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

Arecoline is a natural alkaloid that is found in the betel nut of the *Areca* palm. It is an agonist of the muscarinic acetylcholine receptors with EC₅₀ values of 7, 95, 11, 410, and 69 nM for M₁, M₂, M₃, M₄, and M₅, respectively.¹⁻³ Generally, arecoline causes smooth muscle contraction.^{1,4,5} Arecoline and other muscarinic receptor agonists have been shown to improve learning and memory and may prove to be useful in treating dementia.⁶⁻⁸

References

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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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