Arecoline hydrobromide

**Catalog No:** 14132, 14133
**Format:** 1 g, 250 mg

**Chemical Properties:**
- MW = 236.1
- C₉H₁₃NO₂ • HBr
- CAS 300-08-3

**Physical Properties:** White crystalline powder

**Names:** Arecoline hydrobromide, 1,2,5,6-tetrahydro-1-methyl-3-pyridinecarboxylic acid, methyl ester, hydrobromide

**Pharmacology:** Tyrosine 407 phosphorylation activates mitochondrial acetyl-CoA acetyltransferase 1 (ACAT1) by stabilizing its tetramer. This is believed to be the mechanisms by which ACAT1 is "hijacked" and contributes to the Warburg effect in cancer. Arecoline is a covalent inhibitor of ACAT1 which binds to and disrupts only ACAT1 tetramers (IC₅₀ = 11.1 µM). ACAT2 and DLAT are not inhibited. Treatment of xenograft nude mice with Arecoline resulted in a dose-dependent reduction in tumor mass (ref 1). Agonist at muscarinic acetylcholine receptors M1-M5 (EC₅₀ in the range of 7-410 nM) (ref 2). May be effective in dementia (ref 3).

**Solubilization:** May be dissolved in water (50 mg/ml)

**Fluorescent Properties:** N/A

**Quality Control:**
>98% (TLC); NMR (Conforms)

**References:**

**Storage and Guarantee:** Store desiccated as supplied at room temperature for up to 2 years. Do not store solutions for longer than one day.

This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.