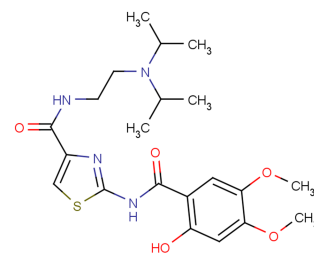


Acotiamide

Chemical Properties

CAS No. :	185106-16-5
Formula:	C ₂₁ H ₃₀ N ₄ O ₅ S
Molecular Weight:	450.55
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Acotiamide is an orally active, selective and reversible acetylcholinesterase (AChE) inhibitor, with IC ₅₀ of 1.79 μ M. Acotiamide is a gastroprokinetic agent that enhances gastric contractility and accelerates delayed gastric emptying. Acotiamide has the potential for the research of functional dyspepsia involving gastric motility dysfunction and intestinal inflammatory [1] [2] [3].
In vitro	Acotiamide (10, 30, 100 μ M; 1 hour) significantly reduces I κ B- α phosphorylation expression levels in LPS- and MCP-1-activated macrophage cell lines, specifically NR8383, as observed in Cell Viability Assays [1]. This treatment resulted in a noticeable decrease in the production of both TNF- α and IL-6 in these stimulated cells.
In vivo	Acotiamide demonstrates a dose-dependent enhancement in postprandial gastric motility indices when administered either intravenously (0.3, 1, 3 mg/kg) or orally (3, 10, 30 mg/kg) [2]. A single intravenous dose (0.83 mg/kg) of acotiamide significantly inhibits acetylcholinesterase (AChE) activity in the rat stomach, with an IC ₅₀ value of 1.79 μ M, thereby potentially improving functional dyspepsia [3]. These findings were observed in experiments involving male mongrel dogs weighing 9-11 kg and male beagle dogs weighing 9.6-12.9 kg for the gastric motility study [2], and male Sprague-Dawley rats aged 6-7 weeks for the AChE inhibition study [3]. The results indicate acotiamide's effectiveness in increasing postprandial gastric motility and inhibiting AChE in the stomach, evidenced by detailed animal models and specific dosage administrations.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2195 mL	11.0975 mL	22.1951 mL
5 mM	0.4439 mL	2.2195 mL	4.439 mL
10 mM	0.222 mL	1.1098 mL	2.2195 mL
50 mM	0.0444 mL	0.222 mL	0.4439 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only· Not for Human or Veterinary or Therapeutic Use

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