

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Data Sheet (Cat.No.T6245)



BAPTA-AM

Chemical Properties

CAS No.: 126150-97-8

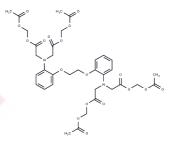
Formula: C34H40N2O18

Molecular Weight: 764.68

Appearance: no data available

Storage: keep away from direct sunlight

Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	BAPTA-AM is a calcium chelator that is cell-permeable and selective, blocking hERG, hKv1.3, and hKv1.5 channels (IC50=1.3/1.45/1.23 μ M). BAPTA-AM has a 105-fold higher affinity for Ca2+ than for Mg2+, and can be used for the role of calcium in cell signaling.				
Targets(IC50)	Potassium Channel				
In vitro	METHODS: Chondrocytes were treated with BAPTA-AM (10 μM) and FAC (100 μM) for 24 h. Intracellular ROS levels were measured using the Reactive Oxygen Species Assay kit. RESULTS: FAC promoted ROS production and this effect was inhibited by the calcium chelator BAPTA-AM. [1] METHODS: Rat fibroblast RAT2 and Xenopus cells were treated with BAPTA-AM (50 μM) for 1 h, and microtubule depolymerization was detected by Immunostaining. RESULTS: BAPTA AM treatment for 30 min resulted in almost complete disassembly in most cells, and microtubules were uniformly depolymerized in cells within 60 min. [2]				
In vivo	METHODS: To investigate the effect on ethanol-induced locomotor activity, BAPTA-AM (0-10 mg/kg, Cremophor EL 1.25% (v/v) in distilled water) was injected intraperitoneally into Swiss (RjOrl) mice, followed by ethanol (0-4 g/kg) 30 min later. RESULTS: Pretreatment with BAPTA-AM blocked the locomotor stimulus produced by ethanol without altering basal locomotion. On the contrary, BAPTA-AM reversed the ethanol-induced hypnosis. [3] METHODS: To investigate the effect on LPS-induced blood-brain barrier leakage, BAPTA-AM (12 mg/kg, 0.01% pluronic acid in sterile saline) was injected intravenously into FVB mice, followed 30 min later by intraperitoneal injection of LPS (25 mg/kg). RESULTS: BAPTA-AM reduced LPS-induced blood-brain barrier leakage. [4]				

Solubility Information

Solubility	DMSO: 50 mg/mL (65.39 mM),Sonication is recommended.
	(< 1 mg/ml refers to the product slightly soluble or insoluble)

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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.3077 mL	6.5387 mL	13.0774 mL
5 mM	0.2615 mL	1.3077 mL	2.6155 mL
10 mM	0.1308 mL	0.6539 mL	1.3077 mL
50 mM	0.0262 mL	0.1308 mL	0.2615 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.

Reference

Jing X, et al. Calcium chelator BAPTA-AM protects against iron overload-induced chondrocyte mitochondrial dysfunction and cartilage degeneration. Int J Mol Med. 2021 Oct;48(4):196.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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