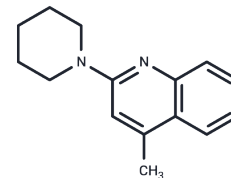


ML204 hydrochloride

Chemical Properties

CAS No. :	2070015-10-8
Formula:	C ₁₅ H ₁₉ ClN ₂
Molecular Weight:	262.78
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>

HCl



Biological Description

Description	ML204 hydrochloride (ML204 HCl) is a selective and potent TRPC4/TRPC5 channel antagonist that blocks TRPC4 β currents activated by intracellular dialysis via μ -opioid receptor stimulation or guanosine 5'-3-O-(thio)triphosphate (GTP γ S).
Targets(IC50)	TRP/TRPV Channel
In vitro	ML204 hydrochloride inhibited TRPC4 β -mediated increase in intracellular Ca ²⁺ (HEK293 cells) at an IC ₅₀ value of 0.96 μ M with 19-fold selectivity for muscarinic receptor-activated TRPC6 channels. [1] ML204 hydrochloride inhibits TRPC4 β activity by blocking μ -opioid, 5HT _{1A} serotonin, Gi/o activation, and M ₂ muscarinic receptor or endogenous M ₃ -like muscarinic receptor-stimulated Gq/11 pathways. [2] ML204 hydrochloride Inhibits LPS-induced TRPC5 channel function. [3]
In vivo	In an LPS-treated mouse model, ML204 hydrochloride (1 mg/kg; subcutaneous; twice daily for 5 days) increased the risk of death associated with severe hypothermia and decreased the number of peritoneal leukocytes and cytokines. [4]

Solubility Information

Solubility	H ₂ O: 20 mg/mL (76.11 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	3.8055 mL	19.0273 mL	38.0546 mL
5 mM	0.7611 mL	3.8055 mL	7.6109 mL
10 mM	0.3805 mL	1.9027 mL	3.8055 mL
50 mM	0.0761 mL	0.3805 mL	0.7611 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Miller M, et al. Identification of ML204, a novel potent antagonist that selectively modulates native TRPC4/C5 ion channels. *J Biol Chem*. 2011 Sep 23;286(38):33436-46.

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Schaldecker T, et al. Inhibition of the TRPC5 ion channel protects the kidney filter. *J Clin Invest*. 2013 Dec;123(12):5298-309.

Pereira DMS, et al. Transient Receptor Potential Canonical Channels 4 and 5 Mediate Escherichia coli-Derived Thioredoxin Effects in Lipopolysaccharide-Injected Mice. *Oxid Med Cell Longev*. 2018 Jun 10;2018:4904696.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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