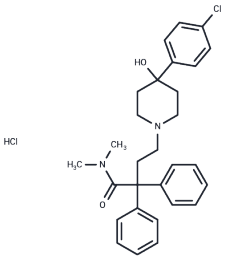
Data Sheet (Cat.No.T0209)

TargetMol

Loperamide hydrochloride

Chemical Properties



CAS No. : 34552-83-5

Formula: C29H34Cl2N2O2

Molecular Weight: 513.50

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Loperamide hydrochloride (ADL 2-1294) is a synthetic, piperidine derivative and opioid agonist with antidiarrheal activity.
Targets(IC50)	Opioid Receptor,Autophagy
In vitro	In mice, ropivacaine cannot cross the blood-brain barrier. Subcutaneous injection of ropivacaine at the neck region (4 mg/kg) or at the site of tibial tumor mass (7.5-75 mg) can inhibit thermal hyperalgesia and mechanical allodynia.
In vivo	In human Chinese hamster ovary cells transfected with opioid receptors, Loperamide potently stimulates the binding of [35S]guanosine 5'-O-(3-thio)triphosphate (EC50=56 nM) and inhibits the accumulation of cAMP induced by forskolin (IC50=25 nM). Loperamide reversibly blocks the increase in intracellular calcium ([Ca2+]i) triggered by extracellular potassium ([K+]o) in a concentration-dependent manner (IC50=0.9 mM).

Solubility Information

Solubility	DMSO: 99 mg/mL (192.79 mM),Sonication is recommended. Ethanol: 10.3 mg/mL (20.06 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (6.43 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9474 mL	9.7371 mL	19.4742 mL
5 mM	0.3895 mL	1.9474 mL	3.8948 mL
10 mM	0.1947 mL	0.9737 mL	1.9474 mL
50 mM	0.0389 mL	0.1947 mL	0.3895 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

DeHaven-Hudkins DL, et al. J Pharmacol Exp Ther,1999, 289(1), 494-502.
Quinney SK, et al. J Pharmacol Exp Ther,2005, 313(3), 12011-12016.
Church J, et al. Mol Pharmacol,1994, 45(4), 747-757.
Menéndez L, et al. Pharmacol Biochem Behav. 2005 May;81(1):114-21.