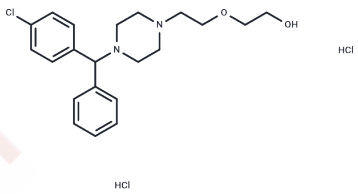
Data Sheet (Cat.No.T2200)

TargetMol

Hydroxyzine dihydrochloride

Chemical Properties



CAS No. : 2192-20-3

Formula: C21H27ClN2O2·2HCl

Molecular Weight: 447.83

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	Hydroxyzine dihydrochloride (Hydroxyzine 2HCl) is a histamine H1 receptor antagonist that is effective in the treatment of chronic urticaria, dermatitis, and histamine-mediated pruritus. Unlike its major metabolite CETIRIZINE, it does cause drowsiness. It is also effective as an antiemetic, for relief of anxiety and tension, and as a sedative.
Targets(IC50)	Histamine Receptor
In vitro	In a tail-flick test, intraperitoneal injection of 12.5 mg/kg Hydroxyzine reduced the analgesic effect of morphine in rats; however, an injection of 50 mg/kg Hydroxyzine enhanced the effect of morphine. Furthermore, 500 μM Hydroxyzine significantly decreased the steady-state concentration of etoposide by half, achieving a concentration of 0.055 μM/mL in Sprague-Dawley rats.
In vivo	At a concentration of 0.1 mM, Hydroxyzine inhibits 50% of Experimental Autoimmune Encephalomyelitis (EAE) exacerbation in Lewis rats and suppresses 70% of mast cell degranulation. In bladder slices pre-treated with Hydroxyzine, a 60-minute incubation results in a 34% inhibition of 5-hydroxytryptamine release induced by 10 μM carbachol, with 1 μM Hydroxyzine causing a 25% inhibition and 0.1 μM suppressing it by 17%. Additionally, 500 μM Hydroxyzine significantly enhances the transport of digoxin to the serosal side in isolated everted jejunum sacs and notably reduces the efflux of approximately 2.4 μg/mL digoxin in the jejunum and ileum.

Solubility Information

Solubility	H2O: 201 mM,Sonication is recommended. DMSO: 55 mg/mL (122.81 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.233 mL	11.165 mL	22.3299 mL
5 mM	0.4466 mL	2.233 mL	4.466 mL
10 mM	0.2233 mL	1.1165 mL	2.233 mL
50 mM	0.0447 mL	0.2233 mL	0.4466 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

Anthes JC, et al. Eur J Pharmacol, 2002, 449(3), 229-237.
Minogiannis P, et al. Int J Immunopharmacol, 1998, 20(10), 553-563.
Dimitriadou V, et al. Int J Immunopharmacol, 2000, 22(9), 673-684.
Kan WM, et al. Anticancer Drugs, 2001, 12(3), 267-273.
Morichi R, et al. Pain, 1979, 7(2), 173-180.

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