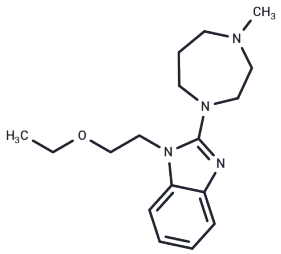
Data Sheet (Cat.No.T3979)

TargetMol

Emedastine

Chemical Properties



CAS No. : 87233-61-2

Formula: C17H26N4O

Molecular Weight: 302.41

Storage: High Volatility
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	Emedastine (LY188695) is a second generation, selective histamine H1 receptor antagonist with anti-allergic activity. Emedastine reversibly and competitively blocks histamine by binding to H1 receptors, thus blocking its downstream activity. As a result this agent interferes with mediator release from mast cells either by inhibiting calcium ion influx across mast cell/basophil plasma membrane or by inhibiting intracellular calcium ion release within the cells. In addition, emedastine may also inhibit the late-phase allergic reaction mediated through leukotrienes or prostaglandins, or by producing an anti-platelet activating factor effect. Upon ocular administration, emedastine causes a dose-dependent inhibition of histamine-stimulated vascular permeability in the conjunctiva. Emedastine does not affect adrenergic, dopamine, or serotonin receptors.
Targets(IC50)	Histamine Receptor

Solubility Information

Solubility	DMSO: 50 mg/mL (165.34 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: 2 mg/mL (6.61 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	3.3068 mL	16.5338 mL	33.0677 mL
5 mM	0.6614 mL	3.3068 mL	6.6135 mL
10 mM	0.3307 mL	1.6534 mL	3.3068 mL
50 mM	0.0661 mL	0.3307 mL	0.6614 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

Liu RF., Efficacy of olopatadine hydrochloride 0.1%, emedastine difumarate 0.05%, and loteprednol etabonate 0.5% for Chinese children with seasonal allergic conjunctivitis: a randomized vehicle-controlled study.

Dong L, Shen S, Chen W, et al. Discovery of Novel Inhibitors Targeting Human O-GlcNAcase: Docking-Based Virtual Screening, Biological Evaluation, Structural Modification, and Molecular Dynamics Simulation. Journal of chemical information and modeling. 2019, 59(10): 4374-4382.

Murota H., Emedastine difumarate inhibits histamine-induced collagen synthesis in dermal fibroblasts. J Investig Allergol Clin Immunol.

Dong L, Shen S, Chen W, et al. Discovery of Novel Inhibitors Targeting Human O-GlcNAcase: Docking-Based Virtual Screening, Biological Evaluation, Structural Modification, and Molecular Dynamics Simulation[J]. Journal of chemical information and modeling. 2019, 59(10): 4374-4382.