Loratadine

Cat. No.:	HY-17043			CI	
CAS No.:	79794-75-5			CI	
Molecular Formula:	C ₂₂ H ₂₃ ClN ₂ O ₂				
Molecular Weight:	382.88				
Target:	Histamine Receptor; Flavivirus; Dengue virus				
Pathway:	GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling; Anti-infection				
Storage:	Powder	-20°C	3 years		
		4°C	2 years		
	In solvent	-80°C	2 years		
		-20°C	1 year		

SOLVENT & SOLUBILITY

In Vitro DMSO	DMSO : 50 mg/mL (130.59 mM; Need ultrasonic)							
		Solvent Mass Concentration	1 mg	5 mg	10 mg			
	Preparing Stock Solutions	1 mM	2.6118 mL	13.0589 mL	26.1178 mL			
		5 mM	0.5224 mL	2.6118 mL	5.2236 mL			
		10 mM	0.2612 mL	1.3059 mL	2.6118 mL			
	Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent of Solubility: ≥ 2.5 m	Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (6.53 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (6.53 mM); Clear solution							
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (6.53 mM); Clear solution							

BIOLOGICAL ACTIVITY					
Description	Loratadine (SCH-29851) is a selective inverse peripheral histamine H1-receptor agonist with an IC50 of >32 μM. Loratadine has anti-dengue-virus (DENV) activity. Loratadine can inhibit immunologic release of inflammatory mediators.				
IC ₅₀ & Target	H ₁ Receptor				
In Vitro	Loratadine is an antihistamine that inhibits histamine-induced activities of IL-6 and IL-8 secretion in endothelial cells. MCE has not independently confirmed the accuracy of these methods. They are for reference only.				

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Product Data Sheet



CUSTOMER VALIDATION

- iScience. 5 January 2022, 103731.
- Eur J Pharmacol. 2023 Oct 21:176147.
- Sci Rep. 2021 Jul 22;11(1):14948.
- J Clin Psychopharmacol. 2022 Jun 2.

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[2]. Menardo JL, Horak F, Danzig MR, Czarlewski W. A review of loratadine in the treatment of patients with allergic bronchial asthma. Clin Ther. 1997 Nov-Dec;19(6):1278-93; discussion 1523-4.

[3]. Monroe EW. Loratadine in the treatment of urticaria. Clin Ther. 1997 Mar-Apr;19(2):232-42.

[4]. Haria M, Fitton A, Peters DH. Loratadine. A reappraisal of its pharmacological properties and therapeutic use in allergic disorders. Drugs. 1994 Oct;48(4):617-37.

[5]. Roman IJ, Danzig MR. Loratadine. A review of recent findings in pharmacology, pharmacokinetics, efficacy, and safety, with a look at its use in combination with pseudoephedrine. Clin Rev Allergy. 1993 Spring;11(1):89-110.

[6]. Shahen M, et al. Dengue virus causes changes of MicroRNA-genes regulatory network revealing potential targets for antiviral drugs. BMC Syst Biol. 2018 Jan 4;12(1):2.

[7]. Kleine-Tebbe J, et al. Inhibition of IgE- and non-IgE-mediated histamine release from human basophil leukocytes in vitro by a histamine H1-antagonist, desethoxycarbonyl-loratadine. J Allergy Clin Immunol. 1994;93(2):494-500.

Caution: Product has not been fully validated for medical applications. For research use only.

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