Levocetirizine

Cat. No.: HY-B0814

CAS No.: 130018-77-8

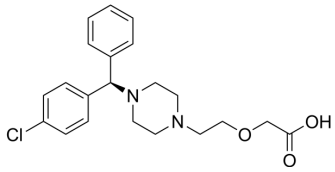
Molecular Formula: $C_{21}H_{25}ClN_2O_3$

Molecular Weight: 388.89

Target: Histamine Receptor

Pathway: GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling

Storage: 4°C, sealed storage, away from moisture and light
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (257.14 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.5714 mL	12.8571 mL	25.7142 mL
	5 mM	0.5143 mL	2.5714 mL	5.1428 mL
	10 mM	0.2571 mL	1.2857 mL	2.5714 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (6.43 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.43 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.43 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Levocetirizine ((R)-Cetirizine) is a third-generation peripheral H1-receptor antagonist. Levocetirizine is an antihistaminic agent which is the R-enantiomer of Cetirizine. Levocetirizine has a higher affinity for the histamine H1-receptor than (S)-Cetirizine and can effectively treat allergic rhinitis and chronic idiopathic urticaria[1].

IC_{50} & Target

H_1 Receptor

In Vivo

Levocetirizine (0.4 mg/kg; oral administration; male Sprague-Dawley rats) treatment shows that the C_{max}, AUC_{0-t}, $AUC_{0-\infty}$ and $t_{1/2}$ are 0.34 μg/mL, 3.26 μg h/mL, 3.67 μg h/mL and 2.34 hours, respectively in Sprague-Dawley rats[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	30 male Sprague-Dawley rats (8 weeks old; 200-250 g)[1]
Dosage:	0.4 mg/kg
Administration:	Oral administration (Pharmacokinetic Analysis)
Result:	The C_{max}, AUC_{0-t}, $AUC_{0-\infty}$ and $t_{1/2}$ were 0.34 μg/mL, 3.26 μg h/mL, 3.67 μg h/mL and 2.34 hours, respectively.

REFERENCES

[1]. Lohar P, et al. Simultaneous bioanalysis and pharmacokinetic interaction study of acebrophylline, levocetirizine and pranlukast in Sprague-Dawley rats. Biomed Chromatogr. 2019 Dec;33(12):e4672.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA