Loratadine-d_5

Cat. No.: HY-17043S1

CAS No.: 1398065-63-8

Molecular Formula: $C_{22}H_{18}D_5ClN_2O_2$

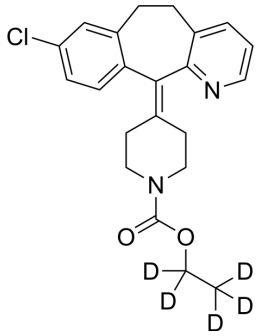
Molecular Weight: 387.91

Target: Histamine Receptor; Isotope-Labeled Compounds

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

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (128.90 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.5779 mL	12.8896 mL	25.7792 mL
	5 mM	0.5156 mL	2.5779 mL	5.1558 mL
	10 mM	0.2578 mL	1.2890 mL	2.5779 mL

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

BIOLOGICAL ACTIVITY

Description

Loratadine-d_5 is the deuterium labeled Loratadine. 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

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1].

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

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

[2]. Kay GG, Harris AG. Loratadine: a non-sedating antihistamine. Review of its effects on cognition, psychomotor performance, mood and sedation. Clin Exp Allergy. 1999 Jul;29 Suppl 3:147-50.;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.;Monroe EW. Loratadine in the treatment of urticaria. Clin Ther. 1997 Mar-Apr;19(2):232-42.;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.;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.;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.;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.

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