Ketotifen-d3 fumarate

Cat. No.: HY-B0157AS

CAS No.: 1795138-23-6

Molecular Formula: $C_{23}H_{20}D_3NO_5S$

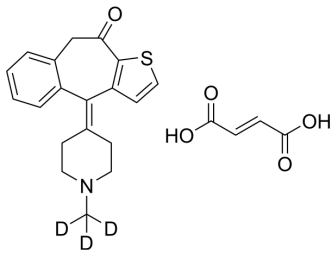
Molecular Weight: 428.52

Target: Histamine Receptor; SARS-CoV; Influenza 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	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (116.68 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3336 mL	11.6681 mL	23.3361 mL
	5 mM	0.4667 mL	2.3336 mL	4.6672 mL
	10 mM	0.2334 mL	1.1668 mL	2.3336 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 (5.83 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.83 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.83 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Ketotifen-d_3 (fumarate) is the deuterium labeled Ketotifen fumarate. Ketotifen (HC 20511) fumarate is a second-generation noncompetitive H1-antihistamine and mast cell stabilizer, which is used to prevent asthma attacks[1][2].

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]. Klooker TK, et al. The mast cell stabiliser ketotifen decreases visceral hypersensitivity and improves intestinal symptoms in patients with irritable bowel syndrome. Gut. 2010 Sep;59(9):1213-21.

[3]. Zhang H, et al. Advances in the discovery of exosome inhibitors in cancer. J Enzyme Inhib Med Chem. 2020;35(1):1322-1330.

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