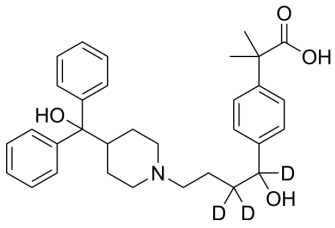
Fexofenadine-d_3-1

Cat. No.:	HY-B0801S4
Molecular Formula:	$C_{32}H_{36}D_3NO_4$
Molecular Weight:	504.67
Target:	Histamine Receptor; Isotope-Labeled Compounds
Pathway:	GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Fexofenadine-d_3-1 fumarate is deuterated labeled Fexofenadine (HY-B0801). Fexofenadine (MDL-16455) is an orally active and nonsedative H1 receptor antagonist. Fexofenadine can be used in allergic rhinitis and chronic idiopathic urticarial research[1][2][3].
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]. Fexofenadine (1-100 μM; 1 h) inhibits the expression of IL-6 protein in nasal fibroblasts in a dose-dependent manner[3]. Fexofenadine (1-100 μM; 1 h) blocks phosphorylated p38 activation in histamine-induced nasal fibroblasts, but shows no effect on either pERK or pJNK[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Fexofenadine hydrochloride (oral administration; 5-20 mg/kg; once daily; 3 w) suppresses both eosinophilia and systemic anaphylaxis in C57BL/6 mice infected with T. spiralis[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Watanabe N, et al. The effects of fexofenadine on eosinophilia and systemic anaphylaxis in mice infected with Trichinella spiralis. Int Immunopharmacol. 2004 Mar;4(3):367-75.

[2]. Park IH, et al. Histamine Promotes the Release of Interleukin-6 via the H1R/p38 and NF-κB Pathways in Nasal Fibroblasts. Allergy Asthma Immunol Res. 2014 Nov;6(6):567-72.

[3]. Ming X, et al. Vectorial transport of fexofenadine across Caco-2 cells: involvement of apical uptake and basolateral efflux transporters. Mol Pharm. 2011 Oct 3;8(5):1677-86.

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

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

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