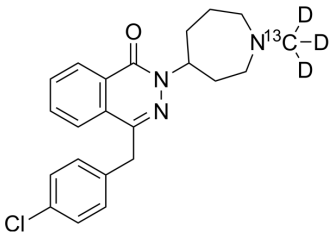
Azelastine-$^{13}C,d_3$

Cat. No.:	HY-B0462AS
Molecular Formula:	$C_{21}{}^{13}CH_{21}D_3ClN_3O$
Molecular Weight:	385.91
Target:	Histamine Receptor; SARS-CoV; Isotope-Labeled Compounds
Pathway:	GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling; Anti-infection; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Azelastine-$^{13}C,d_3$ is deuterium labeled Azelastine. Azelastine, an antihistamine, is a potent and selective histamine 1 (H1) antagonist. Azelastine can be used for the research of allergic rhinitis, asthma, diabetic hyperlipidemic and SARS-CoV-2[1][2][3][4].
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]. Carlos D. Zappia, et al. Azelastine potentiates antiasthmatic dexamethasone effect on a murine asthma model. Pharmacol Res Perspect. 2019 Dec; 7(6): e00531.

[3]. Craig La Force. Review of the pharmacology, clinical efficacy, and safety of azelastine hydrochloridel. Expert Rev Clin Immunol. 2005 Jul;1(2):191-201.

[4]. Li Yang, et al. Identification of SARS-CoV-2 entry inhibitors among already approved drugs. Acta Pharmacol Sin. 2020 Oct 28 : 1-7.

[5]. Mohamed M Elseweidy, et al. Azelastine a potent antihistamine agent, as hypolipidemic and modulator for aortic calcification in diabetic hyperlipidemic rats model. Arch Physiol Biochem. 2020 Jul 2;1-8.

[6]. Shao-Cheng Liu, et al. Effect of budesonide and azelastine on histamine signaling regulation in human nasal epithelial cells. Eur Arch Otorhinolaryngol. 2017 Feb;274(2):845-853.

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