Desloratadine-3,3,5,5-d4

Cat. No.:	HY-B0539S2	
CAS No.:	2713301-38-1	
Molecular Formula:	C ₁₉ H ₁₅ D ₄ ClN ₂	
Molecular Weight:	314.85	[_] N p ∥ p [∞]
Target:	Histamine Receptor; Endogenous Metabolite	
Pathway:	GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling; Metabolic Enzyme/Protease	
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.	п

BIOLOGICAL ACTIVITY		
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Description	Desloratadine-3,3,5,5-d4 is the deuterium labeled Desloratadine. Desloratadine (Sch34117) is the orally active major metabolite of the nonsedating H1-antihistamine Loratadine. Desloratadine is a selective H1-receptor antagonist that has anti-allergic and anti-inflammatory activities ^{[1][2]} .	
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]. Geha, R.S. and E.O. Meltzer, Desloratadine: A new, nonsedating, oral antihistamine. J Allergy Clin Immunol, 2001. 107(4): p. 751-62.

[3]. Schroeder, J.T., et al., Inhibition of cytokine generation and mediator release by human basophils treated with desloratadine. Clin Exp Allergy, 2001. 31(9): p. 1369-77.

[4]. Anthes, J.C., et al., Biochemical characterization of desloratadine, a potent antagonist of the human histamine H(1) receptor. Eur J Pharmacol, 2002. 449(3): p. 229-37.

[5]. McClellan K, et al. Desloratadine. Drugs. 2001;61(6):789-797.

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

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Product Data Sheet

