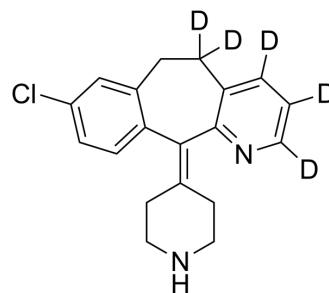


## Desloratadine-d<sub>5</sub>

<b>Cat. No.:</b>	HY-B0539S3
<b>CAS No.:</b>	1020719-34-9
<b>Molecular Formula:</b>	C <sub>19</sub> H <sub>14</sub> D <sub>5</sub> ClN <sub>2</sub>
<b>Molecular Weight:</b>	315.85
<b>Target:</b>	Histamine Receptor; Endogenous Metabolite; Isotope-Labeled Compounds
<b>Pathway:</b>	GPCR/G Protein; Immunology/Inflammation; Neuronal Signaling; Metabolic Enzyme/Protease; Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Desloratadine-d <sub>5</sub> is deuterium labeled Desloratadine. Desloratadine (Sch34117) is the orally active major metabolite of the non-sedating H <sub>1</sub> -antihistamine Loratadine. Desloratadine is a selective H <sub>1</sub> -receptor antagonist that has anti-allergic and anti-inflammatory activities[1][2].
<b>IC<sub>50</sub> &amp; Target</b>	H <sub>1</sub> Receptor
<b>In Vitro</b>	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 <sup>[1]</sup> . 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]. 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.
- [3]. Geha, R.S. and E.O. Meltzer, Desloratadine: A new, non-sedating, oral antihistamine. *J Allergy Clin Immunol*, 2001. 107(4): p. 751-62.
- [4]. McClellan K, et al. Desloratadine. *Drugs.* 2001;61(6):789-797.
- [5]. 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.

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

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