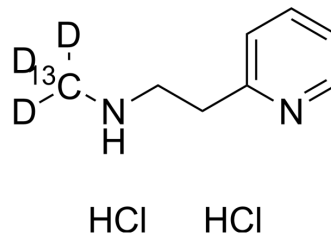


Betahistine-¹³C,₃D₃ dihydrochloride

Cat. No.:	HY-B0524AS1
Molecular Formula:	C ₇ ¹³ CH ₁₁ D ₃ Cl ₂ N ₂
Molecular Weight:	213.13
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	Betahistine- ¹³ C, ₃ D ₃ (dihydrochloride) is the ¹³ C- and deuterium labeled Betahistine (dihydrochloride). Betahistine dihydrochloride is an orally active histamine H ₁ receptor agonist and a H ₃ receptor antagonist[1]. Betahistine dihydrochloride is used for the study of rheumatoid arthritis (RA)[3].
IC₅₀ & 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 ^[32] . 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):211-223.
- [2]. Gbahou F, et al. Effects of betahistine at histamine H₃ receptors: mixed inverse agonism/agonism in vitro and partial inverse agonism in vivo. *J Pharmacol Exp Ther.* 2010 Sep 1;334(3):945-54.
- [3]. Poyurovsky M, et al. The effect of betahistine, a histamine H₁ receptor agonist/H₃ antagonist, on olanzapine-induced weight gain in first-episode schizophrenia patients. *Int Clin Psychopharmacol.* 2005 Mar;20(2):101-3.
- [4]. Tang KT, et al. Betahistine attenuates murine collagen-induced arthritis by suppressing both inflammatory and Th17 cell responses. *Int Immunopharmacol.* 2016 Oct;39:236-245.

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

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