

Product Data Sheet

Product Name: Betahistine-d3 dihydrochloride

Cat. No.: GC63923

Chemical Properties

Cas. No. 244094-72-2

Formula C₈H₁₁D₃Cl₂N₂

M.Wt 212.13

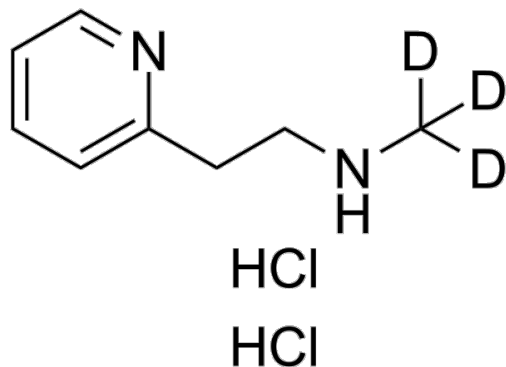
Solubility H₂O : ≥ 50 mg/mL (235.70 mM);
DMSO : 33.33 mg/mL (157.12 mM;
Need ultrasonic); DMF : 5 mg/mL
(23.57 mM; Need ultrasonic)

Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

Betahistine-d3 dihydrochloride is the deuterium labeled Betahistine dihydrochloride. Betahistine dihydrochloride is an orally active histamine H₁ receptor agonist and a H₃ receptor antagonist[1]. Betahistine dihydrochloride is used for the study of rheumatoid arthritis (RA)[3].

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug

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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].

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019;53(2):211-216. [2]. 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.
- [3]. 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.
- [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.

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