Brinzolamide-d5 hydrochloride

Cat. No.: HY-B0588AS

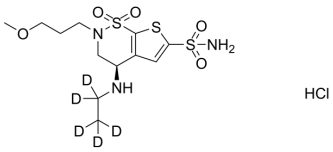
Molecular Formula: $C_{12}H_{17}D_5ClN_3O_5S_3$

Molecular Weight: 425

Target: Carbonic Anhydrase

Pathway: Metabolic Enzyme/Protease

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Brinzolamide-d_5 (hydrochloride) is the deuterium labeled Brinzolamide hydrochloride[1]. Brinzolamide (AL-4862) hydrochloride is a selective carbonic anhydrase II inhibitor with an IC50 value of 3.2 nM. Brinzolamide hydrochloride reduces intraocular pressure (IOP) by inhibiting ciliary CA-II and decreasing atrial fluid secretion. Brinzolamide hydrochloride can be used in glaucoma disease research[2][3].
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 Feb;53(2):211-216.

[2]. Vatsala Naageshwaran, et al. Comprehensive Ocular and Systemic Pharmacokinetics of Brinzolamide in Rabbits After Intracameral, Topical, and Intravenous Administration. J Pharm Sci. 2021 Jan;110(1):529-535.

[3]. Sara M.Smith, et al. Tolerability, pharmacokinetics, and pharmacodynamics of a brinzolamide episcleral sustained release implant in normotensive New Zealand white rabbits,Journal of Drug Delivery Science and Technology,Volume 61,2021,102123,ISSN 1773-2247

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA