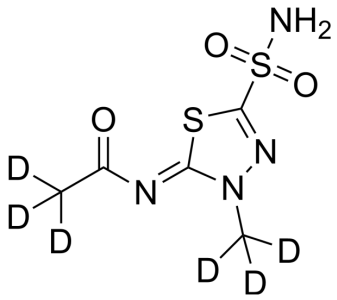
Methazolamide-d6

Cat. No.:	HY-B0553S
CAS No.:	1795142-30-1
Molecular Formula:	$C_5H_2D_6N_4O_3S_2$
Molecular Weight:	242.31
Target:	Carbonic Anhydrase; Isotope-Labeled Compounds
Pathway:	Metabolic Enzyme/Protease; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Methazolamide-d_6 is the deuterium labeled Methazolamide. Methazolamide (L584601) is a sulfonamide derivative used as a carbonic anhydrase inhibitor with a Ki of 14 nM for human carbonic anhydrase II. Methazolamide, an intraocular pressure-lowering agent, reduces intraocular pressure elevations associated with glaucoma and other ocular disorders[1][2].
IC_{50} & Target	CA Ⅱ
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]. Yang F, et al. HLA-B*59:01: a marker for Stevens-Johnson syndrome/toxic epidermal necrolysis caused by methazolamide in Han Chinese. Pharmacogenomics J. 2016;16(1):83-87.

[3]. Abbate F, et al. Carbonic anhydrase inhibitors: X-ray crystallographic structure of the adduct of human isozyme II with the perfluorobenzoyl analogue of methazolamide. Implications for the drug design of fluorinated inhibitors. J Enzyme Inhib Med Chem. 2003;18(4):303-308.

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