Meclofenamic acid-$^{13}C_6$

Cat. No.: HY-117275S1

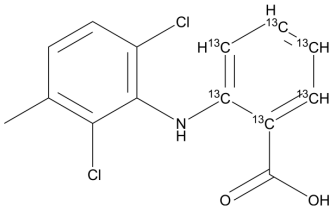
Molecular Formula: $C_8{}^{13}C_6H_{11}Cl_2NO_2$

Molecular Weight: 302.1

Target: Gap Junction Protein; Endogenous Metabolite; Isotope-Labeled Compounds

Pathway: Cytoskeleton; Metabolic Enzyme/Protease; Others

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



BIOLOGICAL ACTIVITY

Description	Meclofenamic acid-$^{13}C_6$ is the $^{13}C_6$ labeled Meclofenamic acid. Meclofenamic Acid (Meclofenamate), a non-steroidal, anti-inflammatory agent, is a highly selective fat mass and obesity-associated (FTO) enzyme inhibitor. Meclofenamic Acid competes with FTO binding for the m(6)A-containing nucleic acid. Meclofenamic acid is a non-selective gap-junction blocker.
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]. Conroy MC, et al. Pharmacology, pharmacokinetics, and therapeutic use of meclofenamate sodium. Clin J Pain. 1991;7 Suppl 1:S44-8.

[2]. Eleftheriou CG, et al. Meclofenamic acid improves the signal to noise ratio for visual responses produced by ectopicexpression of human rod opsin. Mol Vis. 2017 Jun 16;23:334-345. eCollection 2017.

[3]. Huang Y, et al. Meclofenamic acid selectively inhibits FTO demethylation of m6A over ALKBH5. Nucleic Acids Res. 2015 Jan;43(1):373-84.

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

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