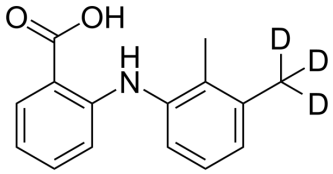
Mefenamic Acid-d3

Cat. No.:	HY-B0574S1
CAS No.:	1189707-81-0
Molecular Formula:	$C_{15}H_{12}D_3NO_2$
Molecular Weight:	244.3
Target:	COX
Pathway:	Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Mefenamic Acid-d3 is the deuterium labeled Mefenamic acid. Mefenamic acid is a non-steroidal anti-inflammatory agent, acting as a competitive inhibitor of hCOX-1 and hCOX-2, with IC_{50}s of 40 nM and 3 μM for hCOX-1 and hCOX-2, respectively.
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]. Gierse JK, et al. Expression and selective inhibition of the constitutive and inducible forms of human cyclo-oxygenase. Biochem J. 1995 Jan 15;305 (Pt 2):479-84.

[3]. Hashemipour MA, et al. In Vitro Cytotoxic Effects of Celecoxib, Mefenamic Acid, Aspirin and Indometacin on Several Cells Lines. J Dent (Shiraz). 2016 Sep;17(3):219-25.

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