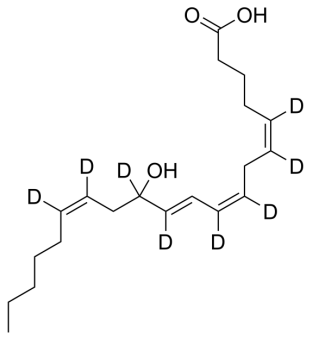
12-HETE-d_8

Cat. No.:	HY-113439S
CAS No.:	2525175-25-9
Molecular Formula:	$C_{20}H_{24}D_8O_3$
Molecular Weight:	328.52
Target:	Apoptosis
Pathway:	Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	12-HETE-d_8 is the deuterium labeled 12-HETE. 12-HETE, a major metabolic product of arachidonic acid using 12-LOX catalysis, inhibits cell apoptosis in a dose-dependent manner. 12-HETE promotes the activation and nuclear translocation of NF-κB through the integrin-linked kinase (ILK) pathway[1].12-HETE has both anti-thrombotic and pro-thrombotic effects[2]. 12-HETE is a neuromodulator[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;53(2):211-216.

[2]. Qian Liu, et al. 12-HETE facilitates cell survival by activating the integrin-linked kinase/NF-κB pathway in ovarian cancer. Cancer Manag Res. 2018 Nov 16;10:5825-5838.

[3]. Benedetta Porro, et al. Analysis, physiological and clinical significance of 12-HETE: a neglected platelet-derived 12-lipoxygenase product. J Chromatogr B Analyt Technol Biomed Life Sci. 2014 Aug 1;964:26-40.

[4]. Aidan J Hampson, et al. 12-hydroxyeicosatetrenoate (12-HETE) attenuates AMPA receptor-mediated neurotoxicity: evidence for a G-protein-coupled HETE receptor. J Neurosci. 2002 Jan 1;22(1):257-64.

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