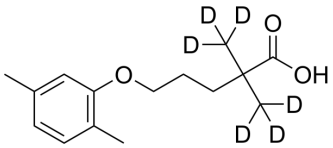
Gemfibrozil-d_6

Cat. No.:	HY-B0258S
CAS No.:	1184986-45-5
Molecular Formula:	$C_{15}H_{16}D_6O_3$
Molecular Weight:	256.37
Target:	PPAR; Cytochrome P450
Pathway:	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description	Gemfibrozil-d_6 is the deuterium labeled Gemfibrozil. Gemfibrozil is an activator of PPAR-α, used as a lipid-lowering agent; Gemfibrozil is also a nonselective inhibitor of several P450 isoforms, with Ki values for CYP2C9, 2C19, 2C8, and 1A2 of 5.8, 24, 69, and 82 μM, 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]. Pahan K, et al. Gemfibrozil, a lipid-lowering drug, inhibits the induction of nitric-oxide synthase in human astrocytes. J Biol Chem. 2002 Nov 29;277(48):45984-91. Epub 2002 Sep 18.

[3]. Almad A, et al. The PPAR alpha agonist gemfibrozil is an ineffective treatment for spinal cord injured mice. Exp Neurol. 2011 Dec;232(2):309-17.

[4]. Wang JS, et al. Gemfibrozil inhibits CYP2C8-mediated cerivastatin metabolism in human liver microsomes. Drug Metab Dispos. 2002 Dec;30(12):1352-6.

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