Fenofibrate-d_6

Cat. No.: HY-17356S

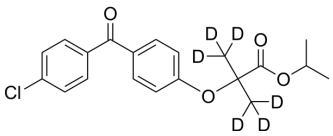
CAS No.: 1092484-56-4

Molecular Formula: $C_{20}H_{15}D_6ClO_4$

Molecular Weight: 366.87

Target: Cytochrome P450; PPAR; Autophagy; Isotope-Labeled Compounds

Pathway: Metabolic Enzyme/Protease; Cell Cycle/DNA Damage; Vitamin D Related/Nuclear Receptor; Autophagy; Others



Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month

BIOLOGICAL ACTIVITY

Description	Fenofibrate-d_6 is the deuterium labeled Fenofibrate. Fenofibrate is a selective PPARα agonist with an EC50 of 30 μM. Fenofibrate also inhibits human cytochrome P450 isoforms, with IC50s of 0.2, 0.7, 9.7, 4.8 and 142.1 μM for CYP2C19, CYP2B6, CYP2C9, CYP2C8, and CYP3A4, respectively.	
IC_{50} & Target	CYP2	CYP3
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]. Schelleman H, et al. Pharmacoepidemiologic and in vitro evaluation of potential drug-drug interactions of sulfonylureas with fibrates and statins. Br J Clin Pharmacol. 2014 Sep;78(3):639-48.

[3]. Gong Y, et al. Fenofibrate Inhibits Cytochrome P450 Epoxygenase 2C Activity to Suppress Pathological Ocular Angiogenesis. EBioMedicine. 2016 Sep 30. pii: S2352-3964(16)30448-0.

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