Bezafibrate-d_6

Cat. No.: HY-B0637S

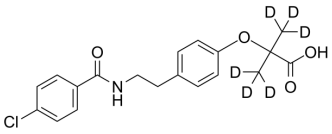
CAS No.: 1219802-74-0

Molecular Formula: $C_{19}H_{14}D_6ClNO_4$

Molecular Weight: 367.86

Target: PPAR

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



Storage:

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

SOLVENT & SOLUBILITY

In Vitro

DMF : ≥ 30 mg/mL (81.55 mM)
DMSO : ≥ 30 mg/mL (81.55 mM)
Ethanol : ≥ 3 mg/mL (8.16 mM)
DMSO:PBS (pH7.2)(1:1) : ≥ 0.5 mg/mL (1.36 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.7184 mL	13.5921 mL	27.1843 mL
5 mM	0.5437 mL	2.7184 mL	5.4369 mL
10 mM	0.2718 mL	1.3592 mL	2.7184 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Bezafibrate-d_6 is the deuterium labeled Bezafibrate. Bezafibrate is an agonist of PPAR, with EC50s of 50 μM, 60 μM, 20 μM for human PPARα, PPARγ and PPARδ, and 90 μM, 55 μM, 110 μM for murine PPARα, PPARγ and PPARδ, respectively; Bezafibrate is used as an hypolipidemic agent.

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]. Willson TM, et al. The PPARs: from orphan receptors to drug discovery. J Med Chem. 2000 Feb 24;43(4):527-50.

[3]. Usui-Ouchi A, et al. The peroxisome proliferator-activated receptor pan-agonist bezafibrate suppresses microvascular inflammatory responses of retinal endothelial cells and vascular endothelial growth factor production in retinal pigmented epithelial cell

[4]. Franko A, et al. Bezafibrate ameliorates diabetes via reduced steatosis and improved hepatic insulin sensitivity in diabetic TallyHo mice. Mol Metab. 2017 Jan 6;6(3):256-266.

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