

Product Data Sheet

Product Name: Fenofibrate-d6

Cat. No.: GC47337

Chemical Properties

Cas. No. 1092484-56-4

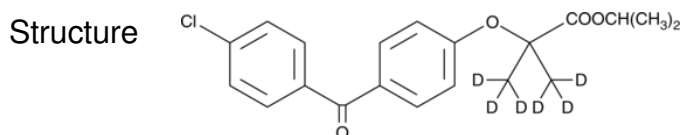
SMILES C1C=CC=C(C(C2=CC=C(OC(C([2H])([2H])[2H])(C(OC(C)C)=O)C([2H])([2H])[2H])C=C2)=O)C=C1

Formula C₂₀H₁₅ClD₆O₄ M.Wt 366.9

Solubility DMF: 30 mg/ml, DMSO: 15 mg/ml, Ethanol: 1 mg/ml Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.



Background

Fenofibrate-d₆ is intended for use as an internal standard for the quantification of fenofibrate by GC- or LC-MS. Fenofibrate is an agonist of peroxisome proliferator-activated receptor α (PPAR α) with EC₅₀ values of 18 and 30 μ M for mouse and human receptors, respectively, in a transactivation assay.¹ It is selective for PPAR α over PPAR γ (EC₅₀s = 300 and 200 μ M for mouse and human receptors, respectively) and lacks activity at mouse and human PPAR δ at a concentration of 100 μ M. *In vivo*, fenofibrate (50-100 mg/kg) reduces plasma levels of triglycerides, C-reactive protein, and malondialdehyde (MDA) in mice with fructose-induced hypertriglycemia in a dose-dependent manner.² It decreases glomerular and tubular atrophy and necrosis induced by cisplatin in rat kidney when administered at a dose of 100 mg/kg.³ Fenofibrate also reduces the number of pulmonary lesions induced by 4-nitroquinoline 1-oxide (4-NQO) in lung of Tsumura Suzuki obese diabetic (TSOD) mice.⁴

Caution: Product has not been fully validated for medical applications. For research use only.

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1. Willson, T.M., Brown, P.J., Sternbach, D.D., et al. The PPARs: From orphan receptors to drug discovery. *J. Med. Chem.* 43(4):527-550 (2000)
2. Sun, B., Xie, Y., Jiang, J., et al. Pleiotropic effects of fenofibrate therapy on rats with hypertriglycemia. *Lipids Health Dis.* 14:27 (2015)
3. Helmy, M.M., Helmy, M.W., and El-Mas, M.M. Additive renoprotection by pioglitazone and fenofibrate against inflammatory, oxidative and apoptotic manifestations of cisplatin nephrotoxicity: Modulation by PPARs. *PLoS One* 10(11):e0142303 (2015)
4. Kuno, T., Hata, K., Takamatsu, M., et al. The peroxisome proliferator-activated receptor (PPAR) α agonist fenofibrate suppresses chemically induced lung alveolar proliferative lesions in male obese hyperlipidemic mice. *Int. J. Mol. Sci.* 15(5):9160-9172 (2014)

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