Clofibric acid

Cat. No.: HY-B1415

CAS No.: 882-09-7

Molecular Formula: $C_{10}H_{11}ClO_3$

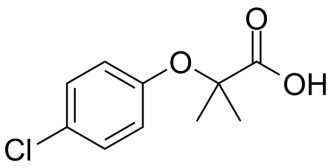
Molecular Weight: 214.65

Target: Drug Metabolite; PPAR

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

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (465.87 mM)

H_2O : 1 mg/mL (4.66 mM; ultrasonic and warming and heat to 80°C)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	4.6587 mL	23.2937 mL	46.5875 mL
5 mM	0.9317 mL	4.6587 mL	9.3175 mL
10 mM	0.4659 mL	2.3294 mL	4.6587 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (11.65 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (11.65 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (11.65 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Clofibric acid (Chlorofibrinic acid), the pharmaceutically active metabolite of lipid regulators Clofibrate, Etofibrate and Etofyllinclofibrate, is a PPARα agonist which exhibits hypolipidemic effects. Clofibric acid also is an herbicide[1][2][3].

IC_{50} & Target

PPARα[1]

REFERENCES

[1]. Forman BM, et, al. Hypolipidemic drugs, polyunsaturated fatty acids, and eicosanoids are ligands for peroxisome proliferator-activated receptors alpha and delta. Proc Natl Acad Sci U S A. 1997 Apr 29;94(9):4312-7.

[2]. Salgado R, et, al. Biodegradation of clofibric acid and identification of its metabolites. J Hazard Mater. 2012 Nov 30;241-242:182-9.

[3]. Kawashima Y, et, al. Increased activity of stearoyl-CoA desaturation in liver from rat fed clofibric acid. Biochim Biophys Acta. 1982 Dec 13;713(3):622-8.

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