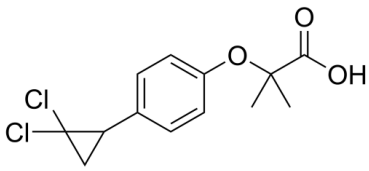
Data Sheet

Product Name:	Ciprofibrate
Cat. No.:	CS-2898
CAS No.:	52214-84-3
Molecular Formula:	$C_{13}H_{14}Cl_2O_3$
Molecular Weight:	289.15
Target:	PPAR
Pathway:	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor
Solubility:	DMSO : ≥ 100 mg/mL



BIOLOGICAL ACTIVITY:

Ciprofibrate (Win35833) is a potent **peroxisome proliferator** and increases the phosphorylation level of the **PPARalpha**[1].
Ciprofibrate acts as an orally active hypolipidaemic agent and can be used for the research of primary hyperlipidaemias[2]. ***In Vitro:***
Ciprofibrate (500 μM; 4 hours) increases the PPARa phosphorylation level in rat Fao cells[1].
In a LucLite assay, Ciprofibrate (10-100μM; 24 hours) induces PPARR activation by existing increased LUC activities in the rat liver H4IIEC3 cells transfected with PPRE-AB LUC reporter gene plasmid[2].
Ciprofibrate (10-100 μM; 24 hours) is not cytotoxic for HepG2 cells, and the cell viability is 99.7%[3].
Ciprofibrate (100 μM; 24 hours) also abolishes FFAs mixture-induced lipid deposition and decreases FFAs mixture-increased TG contents in HepG2 cells[3].
Ciprofibrate (100 μM; 24 hours) almost entirely eliminates the FFAs mixture-induced inflammatory cytokines overproduction, including MCP-1, TNF-α, and IL-6 in HepG2 cells[3].
In Vivo: Ciprofibrate (oral administration; 10 mg/kg/day; 3 days) does not result in any significant effects on body weight or absolute liver weight for MCD diet-fed mice. Ciprofibrate improves hepatic steatosis and reduced hepatic necro-inflammation in MCD diet-fed mice. It also reduced hepatic cytokine protein and mRNA levels (MCP-1, TNFα and IL-6) as compared to those of choline-deficient (MCD) diet-fed mice[3].

References:

[1]. Passilly, P., et al., Phosphorylation of peroxisome proliferator-activated receptor alpha in rat Fao cells and stimulation by ciprofibrate. Biochem Pharmacol, 1999. 58(6): p. 1001-8.

[2]. Agnes M Rimando, et al. Pterostilbene, a new agonist for the peroxisome proliferator-activated receptor alpha-isoform, lowers plasma lipoproteins and cholesterol in hypercholesterolemic hamsters. J Agric Food Chem. 2005 May 4;53(9):3403-7.

[3]. Thing-Fong Tzeng, et al. 6-gingerol protects against nutritional steatohepatitis by regulating key genes related to inflammation and lipid metabolism. Nutrients. 2015 Feb 4;7(2):999-1020.

CAIndexNames:

Propanoic acid, 2-[4-(2,2-dichlorocyclopropyl)phenoxy]-2-methyl-

SMILES:

CC(C)(OC1=CC=C(C2C(Cl)(Cl)C2)C=C1)C(O)=O

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

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