Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Fenofibrate

Catalog No: tcsc0892

Available Sizes

Size: 5g

Size: 10g

Specifications

CAS No:
49562-28-9

Formula:
$C_{20}H_{21}ClO_4$

Pathway:
Cell Cycle/DNA Damage;Autophagy;Metabolic Enzyme/Protease

Target:
PPAR;Autophagy;Cytochrome P450

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 47 mg/mL (130.26 mM)

Observed Molecular Weight:
360.83

Product Description

Fenofibrate is a relatively potent inhibitor of **CYP2C19** (**IC_{50}**=0.2 μM) and **CYP2B6** (**IC_{50}**=0.7 μM). Fenofibrate is also a well-known **PPARα** agonist (**EC_{50}**=30 μM).

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IC50 & Target: IC50: 0.2 μM (CYP2C19), 0.7 μM (CYP2B6)[1]

EC50: 2.39±0.4 μM (CYP2C), 30 μM (PPARα)[2]

In Vitro: Fenofibrate is a relatively potent inhibitor of CYP2B6 (IC_{50}=0.7±0.2 μM) and CYP2C19 (IC_{50}=0.2±0.1 μM). Fenofibrate is also a moderate inhibitor of CYP2C8 (IC_{50}=4.8±1.7 μM) and CYP2C9 (IC_{50}=9.7 μM)[1]. Fenofibrate binds to and inhibits cytochrome P450 epoxygenase (CYP)2C with higher affinity than to PPARα. Fenofibrate is a well-known PPARα agonist, but an in vitro assessment of 209 frequently prescribed drugs and related xenobiotics suggests that Fenofibrate is also a potent inhibitor of cytochrome P450 epoxygenase (CYP)2C. The affinity of Fenofibrate to CYP2C is >10 times higher (EC_{50}=2.39±0.4 μM) than to PPARα (EC_{50}=30 μM). Fenofibrate at a low dose inhibits CYP2C8 activity without PPARα activation[2].

In Vivo: Daily intake of Fenofibrate at this low dose (10 μg/g/day) inhibits retinal and choroidal neovascularization induced by CYP2C8 overexpression by 29% (P=0.021) and 36% ($P=1.2\times10^{-9}$) respectively[2].