

# Clofibrate

Catalog No: tcsc2300



## Available Sizes

Size: 1g

Size: 5g



## Specifications

**CAS No:**

637-07-0

**Formula:**

$C_{12}H_{15}ClO_3$

**Pathway:**

Cell Cycle/DNA Damage

**Target:**

PPAR

**Purity / Grade:**

>98%

**Solubility:**

DMSO :  $\geq 100$  mg/mL (412.03 mM); H<sub>2</sub>O :

**Observed Molecular Weight:**

242.7

## Product Description

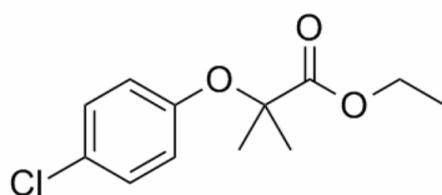
Clofibrate is an agonist of **PPAR**, with **EC<sub>50</sub>**s of 50  $\mu$ M, ~500  $\mu$ M for murine PPAR $\alpha$  and PPAR $\gamma$ , and 55  $\mu$ M, ~500  $\mu$ M for human PPAR $\alpha$  and PPAR $\gamma$ , respectively.

IC<sub>50</sub> & Target: EC<sub>50</sub>: 50  $\mu$ M (Murine PPAR $\alpha$ ), ~500  $\mu$ M (Murine PPAR $\gamma$ ), 55  $\mu$ M (Human PPAR $\alpha$ ), ~500  $\mu$ M (Human PPAR $\gamma$ )<sup>[1]</sup>

**In Vitro:** Clofibrate is a PPAR agonist, with E<sub>50</sub>s of 50  $\mu$ M, ~500  $\mu$ M for murine PPAR $\alpha$  and PPAR $\gamma$ , and 55  $\mu$ M, ~500  $\mu$ M for human

PPAR $\alpha$  and PPAR $\gamma$ , respectively<sup>[1]</sup>. Clofibrate (0.5, 1, 2 mM) increases FABP1 expression in two fatty acid (FA)-treated rat hepatoma cells. Clofibrate lowers ROS levels after early treatment, much more than late treatment in FA-treated cells<sup>[2]</sup>.

**In Vivo:** Clofibrate (0.5%) up-regulates serum concentrations and hepatic expression of FGF21 in fetuses, with a return to basal levels after Clofibrate administration withdrawal. Clofibrate administration-offspring have significantly higher expression of thermogenic genes (Ucp1, Cidea, Ppara Ppargc1a, Cpt1b) and UCP1 protein levels in response to HFD in inguinal fat, but not in retroperitoneal (combined with perirenal) or epididymal fat<sup>[3]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!