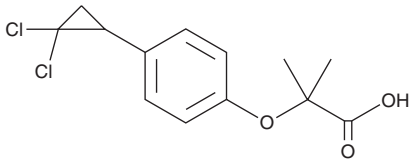
PRODUCT INFORMATION

Ciprofibrate

Item No. 18515

CAS Registry No.: 52214-84-3
Formal Name: 2-[4-(2,2-dichlorocyclopropyl) phenoxy]-2-methyl-propanoic acid
Synonyms: (±)-Ciprofibrate, WIN 35,833
MF: $C_{13}H_{14}Cl_2O_3$
FW: 289.2
Purity: ≥98%
UV/Vis.: λ_{max}: 232 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Ciprofibrate is supplied as a crystalline solid. A stock solution may be made by dissolving the ciprofibrate in the solvent of choice, which should be purged with an inert gas. Ciprofibrate is soluble in the organic solvent methanol at a concentration of approximately 20 mg/ml.

Description

Ciprofibrate is an agonist of peroxisome proliferator-activated receptor α (PPARα; EC_{50} = 0.9 µM in a transactivation assay).[1] It is selective for PPARα over PPARγ and PPARδ at 300 µM.[2] Ciprofibrate (250 µM) induces cell cycle arrest at the G_2/M and S phases in Fao rat, but not HepG2 human, hepatocellular carcinoma cells.[3] It decreases fasting plasma levels of triglycerides and increases fasting plasma glucose levels in the apolipoprotein CIII transgenic mouse model of hypertriglyceridemia when administered at a dose of 10 mg/kg.[4] Formulations containing ciprofibrate have been used in the treatment of hypertriglyceridemia.

References

1. Quang, T.H., Ngan, N.T.T., Minh, C.V., *et al.* Anti-inflammatory and PPAR transactivational effects of secondary metabolites from the roots of *Asarum sieboldii*. *Bioorg. Med. Chem. Lett.* **22(7)**, 2527-2533 (2012).
2. Forman, B.M., Chen, J., and Evans, R.M. Hypolipidemic drugs, polyunsaturated fatty acids, and eicosanoids are ligands for peroxisome proliferator-activated receptors α and δ. *Proc. Natl. Acad. Sci. USA* **94(9)**, 4312-4317 (1997).
3 Passilly, P., Jannin, B., Hassell, S.J., *et al.* Human HepG2 and rat Fao hepatic-derived cell lines show different responses to ciprofibrate, a peroxisome proliferator: analysis by flow cytometry. *Exp. Cell. Res.* **223(2)**, 436-442 (1996).
4. Bighetti, E.J.B., Patricio, P.R., Casquero, A.C., *et al.* Ciprofibrate increases cholesteryl ester transfer protein gene expression and the indirect reverse cholesterol transport to the liver. *Lipids Health Dis.* **8**, 50 (2009).

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