PRODUCT INFORMATION



Fenofibric Acid

Item No. 19262

CAS Registry No.:	42017-89-0	
Formal Name:	2-[4-(4-chlorobenzoyl)phenoxy]-2-	
	methyl-propanoic acid	0
Synonyms:	FNF Acid, NSC 281318	
MF:	C ₁₇ H ₁₅ ClO ₄	ОН
FW:	318.8	
Purity:	≥98%	
UV/Vis.:	λ _{max} : 288 nm	ů ř
Supplied as:	A crystalline solid	6
Storage:	4°C	
Stability:	≥2 years	
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.		

Laboratory Procedures

Fenofibric acid is supplied as a crystalline solid. A stock solution may be made by dissolving the fenofibric acid in the solvent of choice. Fenofibric acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of fenofibric acid in these solvents is approximately 16, 2, and 14 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of fenofibric acid can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of fenofibric acid in PBS, pH 7.2, is approximately 0.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Fenofibric acid is a fibrate that acts as a lipid-lowering agent, decreasing low-density lipoprotein cholesterol and triglycerides.¹ It displays high affinity for liver fatty acid binding protein ($K_i = 24 \text{ nM}$).² Fenofibric acid increases plasma apolipoprotein A-II via the response element for peroxisome proliferator-activated receptors (PPARs), although it has very low affinity for PPARs (IC₅₀s > 100 μ M for both human PPARa or PPARy).^{1,3} However, in a transactivation assay, it exhibits EC_{50} values of 18 and 30 μ M for mouse and human PPARα, respectively.⁴ Fenofibric acid, when combined with statins, has been shown to be effective against mixed dyslipidemia in clinical trials.⁵

References

- 1. Mukherjee, R., Locke, K.T., Miao, B., et al. J. Pharmacol. Exp. Ther. 327(3), 716-726 (2008).
- 2. Chuang, S., Velkov, T., Horne, J., et al. J. Med. Chem. 51(13), 3755-3764 (2008).
- 3. Vu-Dac, N., Schoonjans, K., Kosykh, V., et al. J. Clin. Invest. 96(2), 741-750 (1995).
- 4. Willson, T.M., Brown, P.J., Sternbach, D.D., et al. J. Med. Chem. 43(4), 528-550 (2000).
- 5. Alagona, P., Jr. Vasc. Health Risk Manag. 6, 351-362 (2010).

WARNING THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFFTY DATA

al should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution

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