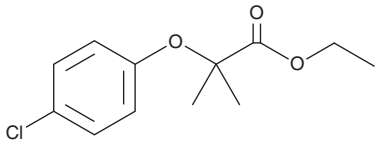
PRODUCT INFORMATION

Clofibrate

Item No. 10956

CAS Registry No.:	637-07-0
Formal Name:	2-(4-chlorophenoxy)-2-methyl-propanoic acid, ethyl ester
Synonyms:	ICI 28257, NSC 79389
MF:	$C_{12}H_{15}ClO_3$
FW:	242.7
Purity:	≥98%
UV/Vis.:	λ_{max}: 226, 280 nm
Supplied as:	A neat oil
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

Clofibrate is supplied as a neat oil. A stock solution may be made by dissolving the clofibrate in the solvent of choice, which should be purged with an inert gas. Clofibrate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of clofibrate in ethanol and DMSO is approximately 80 mg/ml and approximately 50 mg/ml in DMF.

Clofibrate is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, clofibrate should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Clofibrate has a solubility of approximately 0.1 mg/ml in a 1:5 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Clofibrate is a selective agonist of peroxisome proliferator-activated receptor α (PPARα).[1] In a transactivation assay, clofibrate exhibits EC_{50} values of 50 and 55 µM for murine and human PPARα, respectively. It also binds to PPARγ but with 10-fold less affinity and is inactive at PPARδ at concentrations up to 100 µM. Formulations containing clofibrate have been used to treat dyslipidemia and cardiovascular disease.

Reference

1. Willson, T.M., Brown, P.J., Sternbach, D.D., *et al.* The PPARs: From orphan receptors to drug discovery. *J. Med. Chem.* **43(4)**, 528-550 (2000).

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

SAFETY DATA
This material 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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