Gemfibrozil
Item No. 14835

CAS Registry No.: 25812-30-0
Formal Name: 5-(2,5-dimethylphenoxy)-2,2-dimethylpentanoic acid
Synonyms: CI-719, Lopid
MF: C15H22O3
FW: 250.3
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis: λ<sub>max</sub> 219, 275, 281 nm

Laboratory Procedures
For long term storage, we suggest that gemfibrozil be stored as supplied at -20°C. It should be stable for at least two years.

Gemfibrozil is supplied as a crystalline solid. A stock solution may be made by dissolving the gemfibrozil in the solvent of choice. Gemfibrozil is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of gemfibrozil in ethanol and DMF is approximately 30 mg/ml and approximately 16 mg/ml in DMSO.

Gemfibrozil is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, gemfibrozil should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Gemfibrozil has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Gemfibrozil is a fibrate that activates peroxisome proliferator-activator α (PPAR<sub>α</sub>) (EC<sub>50</sub> = 193 μM) with 100% efficacy. It also activates PPARγ (EC<sub>50</sub> = 148 μM), but with only 79% efficacy. Presumably through its effects on PPAR<sub>α</sub>, gemfibrozil lowers triglycerides and increases high density lipoprotein cholesterol levels and is used in the context of atherogenic dyslipidemia. Gemfibrozil strongly binds liver fatty acid-binding protein. Phase II metabolites of gemfibrozil inhibit certain cytochrome P450 isofoms, increasing drug-drug interaction risks.

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/14835

SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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