

Product Data Sheet

Clofibric acid

Cat. No.: HY-B1415 CAS No.: 882-09-7 Molecular Formula: $C_{10}H_{11}ClO_3$ Molecular Weight: 214.65

Target: Drug Metabolite; PPAR

Pathway: Metabolic Enzyme/Protease; Cell Cycle/DNA Damage; Vitamin D Related/Nuclear

Receptor

Storage: Powder -20°C 3 years

4°C 2 years

In solvent -80°C 2 years -20°C 1 year CI OF OF

SOLVENT & SOLUBILITY

In Vitro DMS

DMSO : ≥ 100 mg/mL (465.87 mM)

H₂O: 1 mg/mL (4.66 mM; ultrasonic and warming and heat to 80°C)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	4.6587 mL	23.2937 mL	46.5875 mL
	5 mM	0.9317 mL	4.6587 mL	9.3175 mL
	10 mM	0.4659 mL	2.3294 mL	4.6587 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (11.65 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (11.65 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (11.65 mM); Clear solution

BIOLOGICAL ACTIVITY

Description Clofibric acid (Chlorofibrinic acid), the pharmaceutically active metabolite of lipid regulators Clofibrate, Etofibrate and Etofyllinclofibrate, is a PPARα agonist which exhibits hypolipidemic effects. Clofibric acid also is an herbicide^{[1][2][3]}.

 IC_{50} & Target PPAR $\alpha^{[1]}$

REFERENCES

- [1]. Forman BM, et, al. Hypolipidemic drugs, polyunsaturated fatty acids, and eicosanoids are ligands for peroxisome proliferator-activated receptors alpha and delta. Proc Natl Acad Sci U S A. 1997 Apr 29;94(9):4312-7.
- [2]. Salgado R, et, al. Biodegradation of clofibric acid and identification of its metabolites. J Hazard Mater. 2012 Nov 30;241-242:182-9.
- [3]. Kawashima Y, et, al. Increased activity of stearoyl-CoA desaturation in liver from rat fed clofibric acid. Biochim Biophys Acta. 1982 Dec 13;713(3):622-8.

Caution: Product has not been fully validated for medical applications. For research use only.

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