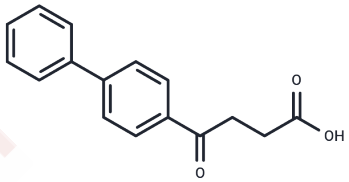
Data Sheet (Cat.No.T0859)

TargetMol

Fenbufen

Chemical Properties



CAS No. : 36330-85-5

Formula: C16H14O3

Molecular Weight: 254.28

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Fenbufen (Lederfen) is a non-steroidal anti-inflammatory drug used primarily to treat inflammation in osteoarthritis, ankylosing spondylitis, and tendinitis. It can also be used to relieve backaches, sprains, and fractures. Fenbufen is available as a capsule or tablet sold with the brand names Cepal, Cinopal, Cybufen, Lederfen, and Reugast. Fenbufen acts by preventing cyclooxygenase from producing prostaglandins which can cause inflammation.
Targets(IC50)	ATPase,Caspase,COX
In vivo	Fenbufen and its metabolites could be involved in mitochondrial toxicity through inhibition of ATP synthesis[1]. Fenbufen inhibited prostaglandin release by 80% and reduced rates of protein synthesis in normal muscle and in muscle undergoing hypertrophy in response to tenotomy of a synergist[3].

Solubility Information

Solubility	Ethanol: 47 mg/mL (184.84 mM),Sonication is recommended. DMSO: 250 mg/mL (983.17 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn oil: 10 mg/mL (39.33 mM),Solution. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: < 10 mg/mL (39.33 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% (20% SBE-β-CD in Saline): < 10 mg/mL (39.33 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+90% Corn Oil: 2 mg/mL (7.87 mM),Sonication is recommended. 10% DMSO+90% Saline: < 10 mg/mL (39.33 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.9327 mL	19.6634 mL	39.3267 mL
5 mM	0.7865 mL	3.9327 mL	7.8653 mL
10 mM	0.3933 mL	1.9663 mL	3.9327 mL
50 mM	0.0787 mL	0.3933 mL	0.7865 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Syed M, et al. Toxicol In Vitro. 2016, 31:23-29.
Naora K, et al. J Antimicrob Chemother. 1992, 30(5):673-683.
Palmer RM, et al. Br J Pharmacol. 1990, 101(4):835-838.