Fenoprofen

Cat. No.: HY-B1456A

CAS No.: 29679-58-1

Molecular Formula: $C_{15}H_{14}O_3$

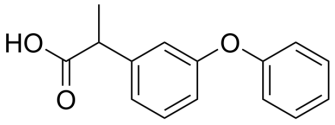
Molecular Weight: 242.27

Target: Melanocortin Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage:

Pure form	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (412.76 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	4.1276 mL	20.6381 mL	41.2763 mL
5 mM	0.8255 mL	4.1276 mL	8.2553 mL
10 mM	0.4128 mL	2.0638 mL	4.1276 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 (10.32 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (10.32 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (10.32 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Fenoprofen (LILLY-53858) is a nonsteroidal anti-inflammatory agent (NSAID). Fenoprofen can be used to to relieve symptoms of arthritis (osteoarthritis and rheumatoid arthritis), such as inflammation, swelling, stiffness, and joint pain. Fenoprofen is an allosteric enhancer for melanocortin receptors. Fenoprofen also increases ERK1/2 activation[1][2].

REFERENCES

[1]. Tahereh Rezaei, et al. A universal methodology for reliable predicting the non-steroidal anti-inflammatory drug solubility in supercritical carbon dioxide. Sci Rep. 2022 Jan 20;12(1):1043.

[2]. Xiao-Chen Yuan, et al. Fenoprofen-An Old Drug Rediscovered as a Biased Allosteric Enhancer for Melanocortin Receptors. ACS Chem Neurosci. 2019 Mar 20;10(3):1066-1074.

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