Licofelone

Cat. No.: HY-B1452

CAS No.: 156897-06-2

Molecular Formula: $C_{23}H_{22}ClNO_2$

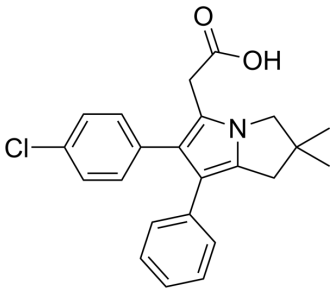
Molecular Weight: 379.88

Target: COX; Lipoxygenase; Apoptosis

Pathway: Immunology/Inflammation; Metabolic Enzyme/Protease; Apoptosis

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 25 mg/mL (65.81 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6324 mL	13.1621 mL	26.3241 mL
	5 mM	0.5265 mL	2.6324 mL	5.2648 mL
	10 mM	0.2632 mL	1.3162 mL	2.6324 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.58 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Licofelone (ML-3000) is a dual COX/5-lipoxygenase (5-LOX) inhibitor (IC_{50}=0.21/0.18 μM, respectively) for the treatment of osteoarthritis. Licofelone exerts anti-inflammatory and anti-proliferative effects. Licofelone induces apoptosis, and decreases the production of proinflammatory leukotrienes and prostaglandins[1][2][3].

IC_{50} & Target

COX	5-LOX
0.21 μM (IC_{50})	0.18 μM (IC_{50})

In Vitro

The IC_{50}s of human thrombocyte COX and human 5-LO are 0.16 μM and 0.23 μM, respectively[3].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Clin Nutr. 2023 Dec 30;43(2):453-467.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Tavolari S, et al. Licofelone, a dual COX/5-LOX inhibitor, induces apoptosis in HCA-7 colon cancer cells through the mitochondrial pathway independently from its ability to affect the arachidonic acid cascade. Carcinogenesis. 2008 Feb;29(2):371-80.

[2]. Alvaro-Gracia JM, et al. Licofelone--clinical update on a novel LOX/COX inhibitor for the treatment of osteoarthritis. Rheumatology (Oxford). 2004 Feb;43 Suppl 1:i21-5.

[3]. Laufer SA, et al. (6,7-Diaryldihydropyrrolizin-5-yl)acetic acids, a novel class of potent dual inhibitors of both cyclooxygenase and 5-lipoxygenase. J Med Chem. 1994 Jun 10;37(12):1894-7.

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