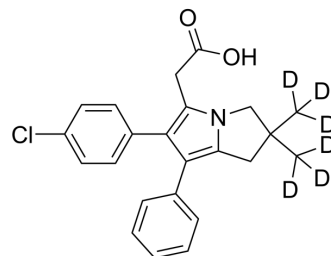


Licofelone-d₆

Cat. No.:	HY-B1452S1
CAS No.:	1178549-81-9
Molecular Formula:	C ₂₃ H ₁₆ D ₆ ClNO ₂
Molecular Weight:	385.92
Target:	Apoptosis; Lipoxygenase; COX
Pathway:	Apoptosis; Metabolic Enzyme/Protease; Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Licofelone-d ₆ is the deuterium labeled Licofelone[1]. 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[2][3][4].
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019 Feb;53(2):211-216.
- [2]. 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.
- [3]. 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.
- [4]. 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.

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

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