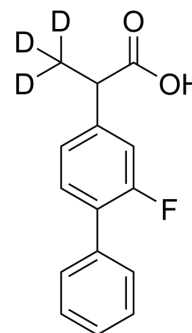


Flurbiprofen-d₃

Cat. No.:	HY-10582S		
CAS No.:	1185133-81-6		
Molecular Formula:	C ₁₅ H ₁₀ D ₃ FO ₂		
Molecular Weight:	247.28		
Target:	Apoptosis; COX		
Pathway:	Apoptosis; Immunology/Inflammation		
Storage:	Powder	-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 (404.40 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	4.0440 mL	20.2200 mL	40.4400 mL
5 mM	0.8088 mL	4.0440 mL	8.0880 mL
10 mM	0.4044 mL	2.0220 mL	4.0440 mL

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

BIOLOGICAL ACTIVITY

Description

Flurbiprofen-d₃ is the deuterium labeled Flurbiprofen. Flurbiprofen (dl-Flurbiprofen) is a potent, orally active nonsteroidal anti-inflammatory agent (NSAIA/NSAID), with antipyretic and analgesic activities. Flurbiprofen is commonly used for the research of inflammatory diseases, including osteoarthritis and rheumatoid arthritis. Flurbiprofen is a non-selective cyclooxygenase (COX) inhibitor that can be used for the research of colorectal cancer[1][2][3].

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;53(2):211-216.

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- [2]. Xiaobo Wang, et al. Flurbiprofen suppresses the inflammation, proliferation, invasion and migration of colorectal cancer cells via COX2. *Oncol Lett.* 2020 Nov; 20(5): 132.
- [3]. E M Glenn, et al. The pharmacology of 2-(2-fluoro-4-biphenyl)propionic acid (flurbiprofen). A potent non-steroidal anti-inflammatory drug. *Agents Actions.* 1973 Nov;3(4):210-6.
- [4]. Hosoi, T., et al., Flurbiprofen ameliorated obesity by attenuating leptin resistance induced by endoplasmic reticulum stress. *EMBO Mol Med*, 2014.
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Caution: Product has not been fully validated for medical applications. For research use only.

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