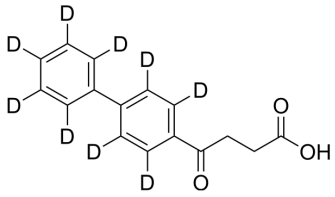
Fenbufen-d9

Cat. No.:	HY-B1138S
CAS No.:	1189940-96-2
Molecular Formula:	$C_{16}H_5D_9O_3$
Molecular Weight:	263.34
Target:	COX; Caspase; Isotope-Labeled Compounds
Pathway:	Immunology/Inflammation; Apoptosis; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Fenbufen-d_9 (CL-82204-d9) is the deuterium labeled Fenbufen. Fenbufen (CL-82204) is an orally active non-steroidal anti-inflammatory drug (NSAID), with antipyretic effects. Fenbufen has potent activity in a variety of animal model, including carageenin edema, UV erythema and adjuvant arthritis. Fenbufen has inhibitory activities against COX-1 and COX-2 with IC50s of 3.9 μM and 8.1 μM, respectively. Fenbufen is a caspases (caspase-1, 3, 4, 5, 9) inhibitor[1][2][3][4][5].
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

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[3]. R G Child, et al. Fenbufen, a new anti-inflammatory analgesic: synthesis and structure-activity relationships of analogs, J Pharm Sci. 1977 Apr;66(4):466-76.

[4]. A E Sloboda, et al. The pharmacology of fenbufen, 3-(4-biphenylylcarbonyl)propionic acid, and 4-biphenylacetic acid, interesting antiinflammatory-analgesic agents. Inflammation. 1976 Dec;1(4):415-38.

[5]. Asif Husain, et al. Fenbufen based 3-[5-(substituted aryl)-1,3,4-oxadiazol-2-yl]-1-(biphenyl-4-yl)propan-1-ones as safer antiinflammatory and analgesic agents. Eur J Med Chem . 2009 Sep;44(9):3798-804.

[6]. Christina E Smith, et al. Non-steroidal Anti-inflammatory Drugs Are Caspase Inhibitors. Cell Chem Biol. 2017 Mar 16;24(3):281-292.

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