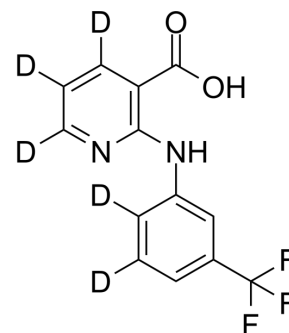


Niflumic Acid-d5

Cat. No.:	HY-B0493S
CAS No.:	1794811-58-7
Molecular Formula:	C ₁₃ H ₄ D ₅ F ₃ N ₂ O ₂
Molecular Weight:	287.25
Target:	Chloride Channel
Pathway:	Membrane Transporter/Ion Channel
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Niflumic Acid-d5 is the deuterium labeled Niflumic acid. Niflumic acid, a Ca ²⁺ -activated Cl ⁻ channel blocker, is an analgesic and anti-inflammatory agent used in the treatment of rheumatoid arthritis ^{[1][2]} .
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.
- [2]. Criddle, D.N., et al., Inhibitory action of niflumic acid on noradrenaline- and 5-hydroxytryptamine-induced pressor responses in the isolated mesenteric vascular bed of the rat. *Br J Pharmacol*, 1997. 120(5): p. 813-8.
- [3]. Jabeen, T., et al., Non-steroidal anti-inflammatory drugs as potent inhibitors of phospholipase A2: structure of the complex of phospholipase A2 with niflumic acid at 2.5 Angstroms resolution. *Acta Crystallogr D Biol Crystallogr*, 2005. 61(Pt 12): p. 1579-86.
- [4]. Picollo, A., et al., Mechanism of interaction of niflumic acid with heterologously expressed kidney CLC-K chloride channels. *J Membr Biol*, 2007. 216(2-3): p. 73-82.

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

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