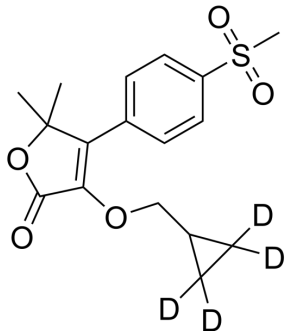
Firocoxib-d_4

Cat. No.:	HY-14670S
CAS No.:	1325700-11-5
Molecular Formula:	$C_{17}H_{16}D_4O_5S$
Molecular Weight:	340.43
Target:	COX; Isotope-Labeled Compounds
Pathway:	Immunology/Inflammation; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Firocoxib-d_4 (ML 1785713-d4) is the deuterium labeled Firocoxib. Firocoxib (ML 1785713) is a potent, selective and orally active COX-2 inhibitor with an IC50 of 0.13 μM. Firocoxib shows 58-fold more selective for COX-2 than COX-1 (IC50 of 7.5 μM). Firocoxib has anti-inflammatory effects[1].
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]. Steagall PV, et al. Evaluation of the adverse effects of oral firocoxib in healthy dogs. J Vet Pharmacol Ther. 2007 Jun;30(3):218-23.

[3]. Stock ML, et al. Pharmacokinetics of firocoxib in preweaned calves after oral and intravenous administration. J Vet Pharmacol Ther. 2014 Oct;37(5):457-63.

[4]. Albanese F, et al. Clinical outcome and cyclo-oxygenase-2 expression in five dogs with solar dermatitis/actinic keratosis treated with firocoxib. Vet Dermatol. 2013 Dec;24(6):606-12, e147.

[5]. [1].McCann ME, et al. In vitro effects and in vivo efficacy of a novel cyclooxygenase-2 inhibitor in cats with lipopolysaccharide-induced pyrexia. Am J Vet Res. 2005 Jul;66(7):1278-84.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA