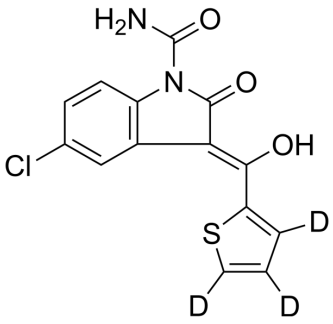
Tenidap-d_3

Cat. No.:	HY-105028S
CAS No.:	142741-60-4
Molecular Formula:	$C_{14}H_6D_3ClN_2O_3S$
Molecular Weight:	323.77
Target:	COX
Pathway:	Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Tenidap-d_3 is the deuterium labeled Tenidap. Tenidap, a non-steroidal anti-inflammatory drug, is a selective COX-1 inhibitor, with IC50 values of 0.03 μM and 1.2 μM for COX-1 and COX-2, respectively. Tenidap has anti-inflammatory and antirheumatic properties[1][2]. Tenidap is also a specific SLC26A3 inhibitor[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.

[2]. Kirchner T, et al. Evaluation of the antiinflammatory activity of a dual cyclooxygenase-2 selective/5-lipoxygenase inhibitor, RWJ 63556, in a canine model of inflammation. J Pharmacol Exp Ther. 1997 Aug;282(2):1094-101.

[3]. Blackburn WD Jr, et al. Tenidap in rheumatoid arthritis. A 24-week double-blind comparison with hydroxychloroquine-plus-piroxicam, and piroxicam alone. Arthritis Rheum. 1995 Oct;38(10):1447-56.

[4]. Julio C Chávez, et al. Participation of the Cl-/HCO(3)- exchangers SLC26A3 and SLC26A6, the Cl- channel CFTR, and the regulatory factor SLC9A3R1 in mouse sperm capacitation. Biol Reprod. 2012 Jan 19;86(1):1-14.

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