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## Piroxicam-d4

Cat. No.
HY-B0253S1
Molecular Formula:
$\mathrm{C}_{15} \mathrm{H}_{9} \mathrm{D}_{4} \mathrm{~N}_{3} \mathrm{O}_{4} \mathrm{~S}$
Molecular Weight:
335.37

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

In Vitro

Piroxicam- $\mathrm{d}_{4}$ is the deuterium labeled Piroxicam. Piroxicam (CP-16171) is a non-steroidal anti-inflammatory drugs, acts as a COX inhibitor, with IC50s of 47, $25 \mu \mathrm{M}$ for human monocyte COX-1 and COX-2, respectively.

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]. Kato M, et al. Cyclooxygenase-1 and cyclooxygenase-2 selectivity of non-steroidal anti-inflammatory drugs: investigation using human peripheral monocytes. J Pharm Pharmacol. 2001 Dec;53(12):1679-85
[3]. Mohammed SI, et al. Effects of the cyclooxygenase inhibitor, piroxicam, on tumor response, apoptosis, and angiogenesis in a canine model of human invasive urinary bladder cancer. Cancer Res. 2002 Jan 15;62(2):356-8.
[4]. Silva J, et al. Synergistic Effect of Carboplatin and Piroxicam on Two Bladder Cancer Cell Lines. Anticancer Res. 2017 Apr;37(4):1737-1745.

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