Product Data Sheet

Meloxicam-¹³C,d₃

Cat. No.: HY-B0261S2

CAS No.: 1309936-00-2

Molecular Formula: C₁₃ 13 CH₁₀ D₃ N₃ O₄ S₂

Molecular Weight: 355.41

Target: Apoptosis; COX; Autophagy; Isotope-Labeled Compounds

Pathway: Apoptosis; Immunology/Inflammation; Autophagy; Others

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Description	Meloxicam- 13 C,d $_3$ is deuterium labeled Meloxicam. Meloxicam is a non-steroidal antiinflammatory agent, inhibits COX activity, with IC50s of 0.49 μ M and 36.6 μ M for COX-2 and COX-1, respectively.
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]. Fikry EM, et al. Rutin and meloxicam attenuate paw inflammation in mice: Affecting sorbitol dehydrogenase activity. J Biochem Mol Toxicol. 2018 Feb;32(2).

 $[3]. \ Iturriaga\ MP, et\ al.\ Meloxicam\ decreases\ the\ migration\ and\ invasion\ of\ CF41.Mg\ canine\ mammary\ carcinoma\ cells.\ Oncol\ Lett.\ 2017\ Aug; 14(2):2198-2206.$

[4]. Lazer ES, et al. Effect of structural modification of enol-carboxamide-type nonsteroidal antiinflammatory drugs on COX-2/COX-1 selectivity. J Med Chem. 1997 Mar 14;40(6):980-9.

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

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