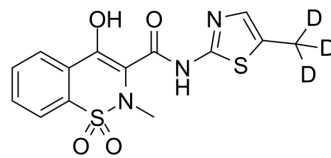


## Meloxicam-d<sub>3</sub>-1

<b>Cat. No.:</b>	HY-B0261S1		
<b>CAS No.:</b>	1227358-55-5		
<b>Molecular Formula:</b>	C <sub>14</sub> H <sub>10</sub> D <sub>3</sub> N <sub>3</sub> O <sub>4</sub> S <sub>2</sub>		
<b>Molecular Weight:</b>	354.42		
<b>Target:</b>	Apoptosis; COX; Autophagy		
<b>Pathway:</b>	Apoptosis; Immunology/Inflammation; Autophagy		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 25 mg/mL (70.54 mM; ultrasonic and warming and heat to 60°C)  
H<sub>2</sub>O : 0.67 mg/mL (1.89 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
	Concentration				
	1 mM		2.8215 mL	14.1076 mL	28.2151 mL
	5 mM		0.5643 mL	2.8215 mL	5.6430 mL
	10 mM		0.2822 mL	1.4108 mL	2.8215 mL

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

Meloxicam-d<sub>3</sub>-1 is the deuterium labeled Meloxicam. Meloxicam is a non-steroidal antiinflammatory agent, inhibits COX activity, with IC<sub>50</sub>s of 0.49 μM and 36.6 μM 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<sup>[1]</sup>.

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]. 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

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14;40(6):980-9.

[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]. Fikry EM, et al. Rutin and meloxicam attenuate paw inflammation in mice: Affecting sorbitol dehydrogenase activity. *J Biochem Mol Toxicol.* 2018 Feb;32(2).

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

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