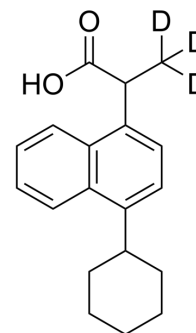


## Vedaprofen-d<sub>3</sub>

<b>Cat. No.:</b>	HY-118827S
<b>CAS No.:</b>	1185054-34-5
<b>Molecular Formula:</b>	C <sub>19</sub> H <sub>19</sub> D <sub>3</sub> O <sub>2</sub>
<b>Molecular Weight:</b>	285.4
<b>Target:</b>	COX; Isotope-Labeled Compounds
<b>Pathway:</b>	Immunology/Inflammation; Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Vedaprofen-d <sub>3</sub> is the deuterium labeled Vedaprofen. Vedaprofen (Quadrisol) is a COX-1 selective nonsteroidal anti-inflammatory agent (NSAID) for serum TxB2 and exudate PGE2 inhibition [1]. Vedaprofen is a Escherichia coli (E. coli) sliding clamp (SC) inhibitor with the IC50 of 222 μM[2].
<b>In Vitro</b>	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]. P Lees, et al. PK-PD integration and PK-PD modelling of nonsteroidal anti-inflammatory drugs: principles and applications in veterinary pharmacology. *J Vet Pharmacol Ther.* 2004 Dec;27(6):491-502.
- [3]. Zhou Yin, et al. DNA replication is the target for the antibacterial effects of nonsteroidal anti-inflammatory drugs. *Chem Biol.* 2014 Apr 24;21(4):481-487.
- [4]. M Hoeijmakers, et al. The pharmacokinetics of Vedaprofen and its enantiomers in dogs after single and multiple dosing. *J Vet Pharmacol Ther.* 2005 Jun;28(3):305-12.

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

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