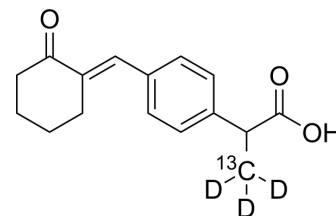


## Pelubiprofen-<sup>13</sup>C,<sub>3</sub>D<sub>3</sub>

<b>Cat. No.:</b>	HY-12383S
<b>Molecular Formula:</b>	C <sub>15</sub> <sup>13</sup> CH <sub>15</sub> D <sub>3</sub> O <sub>3</sub>
<b>Molecular Weight:</b>	262.32
<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>	<p>Pelubiprofen-<sup>13</sup>C,<sub>3</sub>D<sub>3</sub> is the <sup>13</sup>C- and deuterium labeled Pelubiprofen. Pelubiprofen, an orally active and non-steroidal anti-inflammatory drug, is a member of the 2-arylpropionic acid family and has relatively selective effects on COX-2 activity. Pelubiprofen inhibits COX activity and the transforming growth factor-β activated kinase 1-IκB kinase β-NF-κB pathway, and has significant anti-inflammatory and analgesic effects[1].</p>
<b>In Vitro</b>	<p>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>[29]</sup>. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

### REFERENCES

- [1]. Choi IA, Baek HJ, et al. Comparison of the efficacy and safety profiles of a pelubiprofen versus celecoxib in patients with rheumatoid arthritis: a 6-week, multicenter, randomized, double-blind, phase III, non-inferiority clinical trial. *BMC Musculoskelet Disord.* 2014 Nov 18;15:375.
- [2]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-223.

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

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