## **Product** Data Sheet

## Fenoprofen-13C6(sodium salt hydrate)

 $C_{9}^{13}C_{6}H_{10}NaO_{4}$ 

Cat. No.: HY-B1456AS

Molecular Weight: 283.18

Molecular Formula:

Target: Melanocortin Receptor; Isotope-Labeled Compounds

Pathway: GPCR/G Protein; Neuronal Signaling; Others

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

Analysis.

## **BIOLOGICAL ACTIVITY**

Description	Fenoprofen-13C6 sodium salt hydrate is the 13C labeled <u>Fenoprofen</u> (HY-B1456A). Fenoprofen is a nonsteroidal anti-inflammatory agent (NSAID). Fenoprofen can be used to to relieve symptoms of arthritis (osteoarthritis and rheumatoid arthritis), such as inflammation, swelling, stiffness, and joint pain. Fenoprofen is an allosteric enhancer for melanocortin receptors. Fenoprofen also increases ERK1/2 activation <sup>[1][2][3]</sup> .
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 Feb;53(2):211-216.

[2]. Tahereh Rezaei, et al. A universal methodology for reliable predicting the non-steroidal anti-inflammatory drug solubility in supercritical carbon dioxide. Sci Rep. 2022 Jan 20;12(1):1043.

[3]. Xiao-Chen Yuan, et al. Fenoprofen-An Old Drug Rediscovered as a Biased Allosteric Enhancer for Melanocortin Receptors. ACS Chem Neurosci. 2019 Mar 20;10(3):1066-1074.

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

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