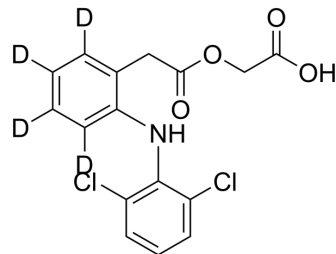


## Aceclofenac-d<sub>4</sub>

Cat. No.:	HY-B0634S
Molecular Formula:	C <sub>16</sub> H <sub>9</sub> D <sub>4</sub> Cl <sub>2</sub> NO <sub>4</sub>
Molecular Weight:	358.21
Target:	COX; Isotope-Labeled Compounds
Pathway:	Immunology/Inflammation; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

#### Description

Aceclofenac-d<sub>4</sub> is the deuterium labeled Aceclofenac. Aceclofenac is an orally active nonsteroidal anti-inflammatory agent (NSAID), with analgesic and anti-inflammatory properties. Aceclofenac is used for the research of osteoarthritis, ankylosing spondylitis, rheumatoid arthritis[1][2].

#### 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]. Y Henrotin, et al. In vitro effects of aceclofenac and its metabolites on the production by chondrocytes of inflammatory mediators. *Inflamm Res*. 2001 Aug;50(8):391-9.
- [3]. E Maneiro, et al. Aceclofenac increases the synthesis of interleukin 1 receptor antagonist and decreases the production of nitric oxide in human articular chondrocytes. *J Rheumatol*. 2001 Dec;28(12):2692-9.
- [4]. E Maneiro, et al. Keumhan Noh, et al. Absolute bioavailability and metabolism of aceclofenac in rats. *Arch Pharm Res*. 2015 Jan;38(1):68-72.

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

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