

Product Data Sheet

Product Name: Carprofen-d3

Cat. No.: GC71687

Chemical Properties

Cas. No. 1173019-42-5

Formula $C_{15}H_9D_3ClNO_2$

M.Wt 276.73

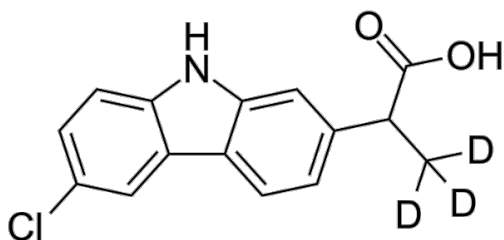
Solubility

Storage

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

Carprofen-d3 is the deuterium labeled Carprofen. Carprofen is a nonsteroid anti-inflammatory agent, acts as a multi-target FAAH/COX inhibitor, with IC50s of 3.9 μM, 22.3 μM and 78.6 μM for COX-2, COX-1 and FAAH, respectively.

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^[1].

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

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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References:

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother*. 2019;53(2):211-216.
- [2]. Favia AD, et al. Identification and characterization of carprofen as a multitarget fatty acid amide hydrolase/cyclooxygenase inhibitor. *J Med Chem*. 2012 Oct 25;55(20):8807-26.
- [3]. Waldherr K, et al. In vitro cytoprotective effects of acetylsalicylic acid, carprofen, meloxicam, or robenacoxib against apoptosis induced by sodium nitroprusside in canine cruciate ligament cells. *Am J Vet Res*. 2012 Nov;73(11):1752-8.
- [4]. Sessions JK, et al. In vivo effects of carprofen, deracoxib, and etodolac on prostanoid production in blood, gastric mucosa, and synovial fluid in dogs with chronic osteoarthritis. *Am J Vet Res*. 2005 May;66(5):812-7.

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