Product Data Sheet

Product Name: (S)-(-)-Felodipine-d5
Cat. No.: GC63321

Chemical Properties

Cas. No.	1217744-87-0		
Formula	$C_{18}H_{14}D_5Cl_2NO_4$	M.Wt	389.28
Solubility		Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ 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	(S)-(-)-Felodipine-d5		

Background

(S)-(-)-Felodipine-d5 is the deuterium labeled (S)-(-)-Felodipine. (S)-(-)-Felodipine is the S enantiomer of Felodipine. Felodipine, a dihydropyridine, is a potent, vasoselective calcium channel antagonist. Felodipine lowers blood pressure (BP) by selective action on vascular smooth muscle, especially in the resistance vessels. Felodipine, an anti-hypertensive agent, induces autophagy. Felodipine can cross the blood-brain barrier[1] [2][3].

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].

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216. [2]. Johnson JD, et al. Calcium and calmodulin antagonists binding to calmodulin and relaxation of coronary segments. J Pharmacol Exp Ther. 1983;226(2):330-334.;Siddiqi FH, et al. Felodipine induces autophagy in mouse brains with pharmacokinetics amenable to repurposing [published correction appears in Nat Commun. 2019 Jun 4;10(1):2530]. Nat Commun.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

2019;10(1):1817. Published 2019 Apr 18.;Yiu, S. and E.E. Knaus, Synthesis, biological evaluation, calcium channel antagonist activity, and anticonvulsant activity of felodipine coupled to a dihydropyridine-pyridinium salt redox chemical delivery system. J Med Chem, 1996. 39(23): p. 4576-82.

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