Lercanidipine-d_3 hydrochloride

Cat. No.: HY-B0612DS1

CAS No.: 1189954-18-4

Molecular Formula: $C_{36}H_{39}D_3ClN_3O_6$

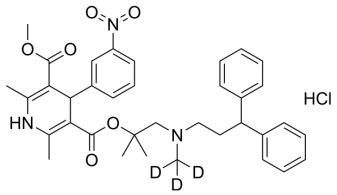
Molecular Weight: 651.21

Target: Calcium Channel; Isotope-Labeled Compounds

Pathway: Membrane Transporter/Ion Channel; Neuronal Signaling; Others

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 20 mg/mL (30.71 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	1.5356 mL	7.6780 mL	15.3560 mL
	5 mM	0.3071 mL	1.5356 mL	3.0712 mL
	10 mM	0.1536 mL	0.7678 mL	1.5356 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Lercanidipine-d_3 (hydrochloride) is the deuterium labeled Lercanidipine. Lercanidipine is a lipophilic third-generation dihydropyridine-calcium channel blocker (DHP-CCB). Lercanidipine has long lasting antihypertensive action and reno-protective effect[1][2][3].

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[1].

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]. Barrios, V., et al., Lercanidipine is an effective and well tolerated antihypertensive drug regardless the cardiovascular risk profile: The LAURA study. Int J Clin Pract, 2006. 60(11): p. 1364-70.

[3]. Burnier, M., M. Pruijm, and G. Wuerzner, Treatment of essential hypertension with calcium channel blockers: what is the place of lercanidipine? Expert Opin Drug Metab Toxicol, 2009. 5(8): p. 981-7.

[4]. Grassi G, et, al. Lercanidipine in the Management of Hypertension: An Update. J Pharmacol Pharmacother. Oct-Dec 2017;8(4):155-165.

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