Barnidipine-d_5 hydrochloride

Cat. No.: HY-107322S

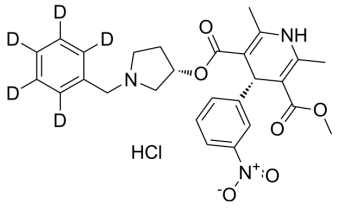
Molecular Formula: $C_{27}H_{25}D_5ClN_3O_6$

Molecular Weight: 533.03

Target: Calcium Channel; Isotope-Labeled Compounds

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

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



BIOLOGICAL ACTIVITY

Description	Barnidipine-d_5 (hydrochloride) is the deuterium labeled Barnidipine hydrochloride. Barnidipine hydrochloride (Mepirodipine hydrochloride) is an L-type calcium antagonist (CaA) with high affinity for [3H] initrendipine binding sites (Ki=0.21 nmol/l), has selective action against CaA receptors[1].Barnidipine hydrochloride (Mepirodipine hydrochloride) is an antihypertensive agent and acts by the reduction of peripheral vascular resistance secondary to its vasodilatory action[2].
IC_{50} & Target	L-type calcium channel
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]. van Zwieten PA, et al. Pharmacological profile of barnidipine: a single optical isomer dihydropyridine calcium antagonist. Blood Press Suppl. 1998;1:5-8.

[3]. Malhotra HS, et al. Barnidipine. Drugs. 2001;61(7):989-96; discussion 997-8.

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