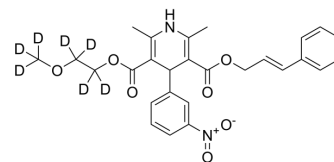


Cilnidipine-d₇

Cat. No.:	HY-17404S
Molecular Formula:	C ₂₇ H ₂₁ D ₇ N ₂ O ₇
Molecular Weight:	499.56
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	Cilnidipine-d ₇ is deuterium labeled Cilnidipine. Cilnidipine is a long-acting, second-generation dihydropyridine Ca ²⁺ -channel blocker on L and N-type Ca ²⁺ channel[1][2][3][4]. Antihypertensive effects[5].
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]. S Fujii, et al. Effect of cilnidipine, a novel dihydropyridine Ca²⁺-channel antagonist, on N-type Ca²⁺ channel in rat dorsal root ganglion neurons. *J Pharmacol Exp Ther.* 1997 Mar;280(3):1184-91.
- [3]. A Takahara, et al. [Antihypertensive effects of repeated oral administration of cilnidipine, a novel calcium antagonist, in 2K1C renal hypertensive dogs]. *Nihon Yakurigaku Zasshi.* 1995 Oct;106(4):279-87.
- [4]. Matthias Löhn, et al. Cilnidipine is a novel slow-acting blocker of vascular L-type calcium channels that does not target protein kinase C. *J Hypertens.* 2002 May;20(5):885-93.
- [5]. Naresh Kumar, et al. Anti-stress effects of cilnidipine and nimodipine in immobilization subjected mice. *Physiol Behav.* 2012 Mar 20;105(5):1148-55.
- [6]. Young Joo Lee, et al. Cilnidipine mediates a neuroprotective effect by scavenging free radicals and activating the phosphatidylinositol 3-kinase pathway. *J Neurochem.* 2009 Oct;111(1):90-100.

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

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