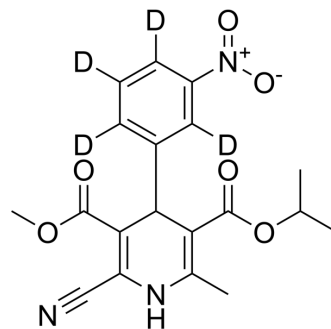


Nilvadipine-d₄

Cat. No.:	HY-14284S
Molecular Formula:	C ₁₉ H ₁₅ D ₄ N ₃ O ₆
Molecular Weight:	389.4
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	Nilvadipine-d ₄ is deuterium labeled Nilvadipine. Nilvadipine is a potent calcium channel antagonist, and the IC ₅₀ value is around 0.1 nM.
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]. Nomoto A, et al. Antiatherogenic activity of FR34235 (Nilvadipine), a new potent calcium antagonist. Effect on cuff-induced intimal thickening of rabbit carotid artery. *Atherosclerosis*. 1987 Apr;64(2-3):255-61.
- [3]. Nomoto A, et al. Smooth muscle cell migration induced by inflammatory cell products and its inhibition by a potent calcium antagonist, Nilvadipine. *Atherosclerosis*. 1988 Aug;72(2-3):213-9.
- [4]. Sugawara H, et al. Antioxidant effects of calcium antagonists on rat myocardial membrane lipid peroxidation. *Hypertens Res*. 1996 Dec;19(4):223-8.
- [5]. Yamazaki H, et al. Preservation of retinal morphology and functions in royal college surgeons rat by Nilvadipine, a Ca(2+) antagonist. *Invest Ophthalmol Vis Sci*. 2002 Apr;43(4):919-26.

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

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