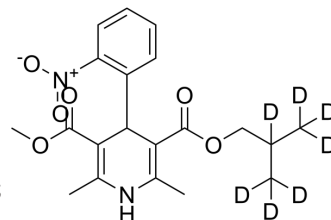


## Nisoldipine-d<sub>7</sub>

<b>Cat. No.:</b>	HY-17402S2
<b>CAS No.:</b>	1189718-34-0
<b>Molecular Formula:</b>	C <sub>20</sub> H <sub>17</sub> D <sub>7</sub> N <sub>2</sub> O <sub>6</sub>
<b>Molecular Weight:</b>	395.46
<b>Target:</b>	Calcium Channel; Reactive Oxygen Species; Isotope-Labeled Compounds
<b>Pathway:</b>	Membrane Transporter/Ion Channel; Neuronal Signaling; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB; Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Nisoldipine-d <sub>7</sub> (BAY-k 5552-d7) is the deuterium labeled Nisoldipine. Nisoldipine(BAY-k 5552) is a calcium channel blocker belonging to the dihydropyridines class, specific for L-type Cav1.2 with IC50 of 10 nM[1][2].
<b>In Vitro</b>	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 <sup>[1]</sup> . 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]. Hamilton SF, Houle LM, Thadani U. Rapid-release and coat-core formulations of nisoldipine in treatment of hypertension, angina, and heart failure. *Heart Dis.* 1999 Nov-Dec;1(5):279-88.
- [3]. Fodor JG. Nisoldipine CC: efficacy and tolerability in hypertension and ischemic heart disease. *Cardiovasc Drugs Ther.* 1997 Jan;10 Suppl 3:873-9.
- [4]. D.J. Duncker, J.M. Hartog, P.G. Hugenholtz, et al. The effects of nisoldipine (Bay K 5552) on cardiovascular performance and regional blood flow in pentobarbital - anaesthetized pigs with or without β-adrenoceptor blockade. *British Journal of Pharmacology.* 1986,88(1): 9-18
- [5]. Jan W. De Jong, Tom Huizer, Jan G.P. Tijssen. Energy conservation by nisoldipine in ischaemic heart. *British Journal of Pharmacology.* 1984, 83(4): 943-949

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

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