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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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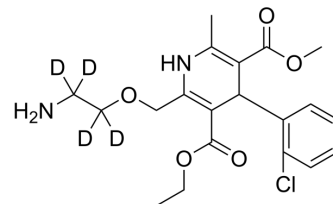
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Amlodipine-d₄

Cat. No.:	HY-B0317S1
CAS No.:	1185246-14-3
Molecular Formula:	C ₂₀ H ₂₁ D ₄ ClN ₂ O ₅
Molecular Weight:	412.9
Target:	Isotope-Labeled Compounds; Calcium Channel
Pathway:	Others; Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 31.25 mg/mL (75.68 mM; Need ultrasonic and warming)

	Solvent Concentration	Mass	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM		2.4219 mL	12.1095 mL	24.2189 mL
	5 mM		0.4844 mL	2.4219 mL	4.8438 mL
	10 mM		0.2422 mL	1.2109 mL	2.4219 mL

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

BIOLOGICAL ACTIVITY

Description

Amlodipine-d₄ is a deuterium labeled Amlodipine (HY-B0317). Amlodipine, an antianginal agent and an orally active dihydropyridine calcium channel blocker, works by blocking the voltage-dependent L-type calcium channels, thereby inhibiting the initial influx of calcium. Amlodipine can be used for the research of high blood pressure and cancer^{[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]. Kishen G. Bulsara, et al. Amlodipine.

[2]. Hara M, et al. Amlodipine. A reappraisal of its pharmacological properties and therapeutic use in cardiovascular disease [published correction appears in Drugs 1995 Nov;50(5):896]. Drugs. 1995;50(3):560-586.

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- [3]. Yoshida J, et, al. Antitumor effects of amlodipine, a Ca²⁺ channel blocker, on human epidermoid carcinoma A431 cells in vitro and in vivo. Eur J Pharmacol. 2004 May 25;492(2-3):103-12.
- [4]. Okuyama Y, et, al. The effects of anti-hypertensive drugs and the mechanism of hypertension in vascular smooth muscle cell-specific ATP2B1 knockout mice. Hypertens Res. 2018 Feb;41(2):80-87.
- [5]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-246.
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Caution: Product has not been fully validated for medical applications. For research use only.

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