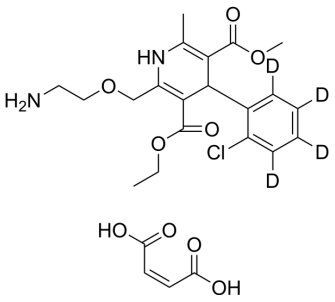
Amlodipine-d_4 maleate

Cat. No.:	HY-B0317AS
CAS No.:	2714486-25-4
Molecular Formula:	$C_{24}H_{25}D_4ClN_2O_9$
Molecular Weight:	528.97
Target:	Calcium Channel; Isotope-Labeled Compounds
Pathway:	Membrane Transporter/Ion Channel; Neuronal Signaling; Others
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description	Amlodipine-d_4 (maleate) is the deuterium labeled Amlodipine maleate. Amlodipine maleate is a dihydropyridine calcium channel blocker, acts as an orally active antianginal agent. Amlodipine maleate blocks the voltage-dependent L-type calcium channels, thereby inhibiting the initial influx of calcium. Amlodipine maleate can be used for the research of high blood pressure and cancer[1][2][3].
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]. 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.

[3]. 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.

[4]. Kishen G. Bulsara, et al. Amlodipine.

[5]. Haria 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.

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

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA