Amiodarone-d_4 hydrochloride

Cat. No.: HY-14188S

CAS No.: 1216715-80-8

Molecular Formula: $C_{25}H_{26}D_4ClI_2NO_3$

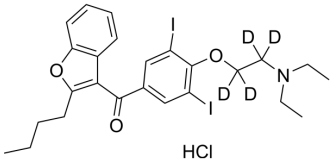
Molecular Weight: 685.8

Target: Autophagy; Potassium Channel

Pathway: Autophagy; Membrane Transporter/Ion Channel

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



BIOLOGICAL ACTIVITY

Description	Amiodarone-d_4 (hydrochloride) is the deuterium labeled Amiodarone hydrochloride. Amiodarone hydrochloride, a benzofuran-based Class III antiarrhythmic agent, inhibits WT outwardIhERG tails with an IC50 of -45 nM[1]. Amiodarone hydrochloride induces cell proliferation and myofibroblast differentiation via ERK1/2 and p38 MAPK signaling in fibroblasts[2]. Amiodarone hydrochloride can be used in the research of both supraventricular and ventricular arrhythmias[1].
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]. Yihong Zhang,et al. Interactions between amiodarone and the hERG potassium channel pore determined with mutagenesis and in silico docking. Biochem Pharmacol. 2016 Aug 1;113:24-35.

[3]. Sabrina Le Bouter, et al. Long-term amiodarone administration remodels expression of ion channel transcripts in the mouse heart. Circulation. 2004 Nov 9;110(19):3028-35.

[4]. Jie Weng, et al. Amiodarone induces cell proliferation and myofibroblast differentiation via ERK1/2 and p38 MAPK signaling in fibroblasts. Biomed Pharmacother. 2019 Jul;115:108889.

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