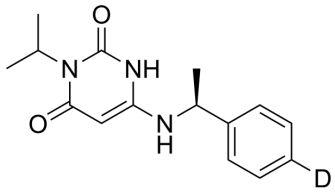
Mavacamten-d_1

Cat. No.:	HY-109037S2
CAS No.:	2453251-02-8
Molecular Formula:	$C_{15}H_{18}DN_3O_2$
Molecular Weight:	274.34
Target:	Isotope-Labeled Compounds; Myosin
Pathway:	Others; Cytoskeleton
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Mavacamten-d_1 (MYK461-d_1; SAR439152-d_1) is deuterium labeled Mavacamten (HY-109037). Mavacamten (MYK461) is an orally active modulator of cardiac myosin, with IC_{50}s of 490, 711 nM for bovine cardiac and human cardiac, respectively.
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 Feb;53(2):211-216.

[2]. Kawas RF, et al. A small-molecule modulator of cardiac myosin acts on multiple stages of the myosin chemomechanical cycle. J Biol Chem. 2017 Oct 6;292(40):16571-16577.

[3]. Stern JA, et al. A Small Molecule Inhibitor of Sarcomere Contractility Acutely Relieves Left Ventricular Outflow Tract Obstruction in Feline Hypertrophic Cardiomyopathy. PLoS One. 2016 Dec 14;11(12):e0168407.

[4]. Green EM, et al. A small-molecule inhibitor of sarcomere contractility suppresses hypertrophic cardiomyopathy in mice. Science. 2016 Feb 5;351(6273):617-21.

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