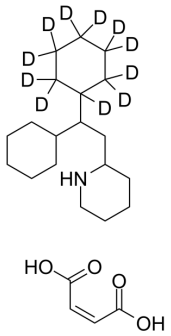
Perhexiline-d11 maleate

Cat. No.:	HY-B1334AS
Molecular Formula:	$C_{23}H_{28}D_{11}NO_4$
Molecular Weight:	404.63
Target:	Mitochondrial Metabolism
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Perhexiline-d11 maleate is the deuterium labeled Perhexiline maleate. Perhexiline maleate is a potent carnitine palmitoyltransferase 1 (CPT 1) inhibitor with IC_{50}s of 77 and 148 μM for rat heart and liver CPT 1, 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;53(2):211-216.

[2]. Kennedy JA, et al. Inhibition of carnitine palmitoyltransferase-1 in rat heart and liver by Perhexiline and amiodarone. Biochem Pharmacol. 1996 Jul 26;52(2):273-80.

[3]. Vella S, et al. Perhexiline maleate enhances antitumor efficacy of cisplatin in neuroblastoma by inducing over-expression of NDM29 ncRNA. Sci Rep. 2015 Dec 17;5:18144.

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