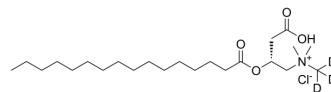


L-Palmitoylcarnitine-d3 hydrochloride

Cat. No.:	HY-113147AS
CAS No.:	1334532-26-1
Molecular Formula:	C ₂₃ H ₄₃ D ₃ ClNO ₄
Molecular Weight:	439.09
Target:	Potassium Channel; Endogenous Metabolite
Pathway:	Membrane Transporter/Ion Channel; Metabolic Enzyme/Protease
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



BIOLOGICAL ACTIVITY

Description	L-Palmitoylcarnitine-d ₃ (hydrochloride) is the deuterium labeled L-Palmitoylcarnitine hydrochloride. L-Palmitoylcarnitine hydrochloride, a long-chain acylcarnitine and a fatty acid metabolite, accumulates in the sarcolemma and deranges the membrane lipid environment during ischaemia. L-Palmitoylcarnitine hydrochloride inhibits KATP channel activity, without affecting the single channel conductance, through interaction with Kir6.2[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]. Haruna T, et al. Alteration of the membrane lipid environment by L-palmitoylcarnitine modulates K(ATP) channels in guinea-pig ventricular myocytes. *Pflugers Arch.* 2000;441(2-3):200-207.

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

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