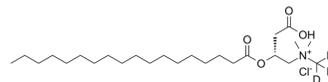


## Stearoyl-L-carnitine-d3 chloride

<b>Cat. No.:</b>	HY-130466S
<b>CAS No.:</b>	2245711-27-5
<b>Molecular Formula:</b>	C <sub>25</sub> H <sub>47</sub> D <sub>3</sub> ClNO <sub>4</sub>
<b>Molecular Weight:</b>	467.14
<b>Target:</b>	GlyT; Endogenous Metabolite
<b>Pathway:</b>	Membrane Transporter/Ion Channel; Neuronal Signaling; Metabolic Enzyme/Protease
<b>Storage:</b>	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### BIOLOGICAL ACTIVITY

<b>Description</b>	Stearoyl-L-carnitine-d <sub>3</sub> (chloride) is the deuterium labeled Stearoyl-L-carnitine chloride. Stearoyl-L-carnitine chloride is an endogenous long-chain acylcarnitine. Stearoyl-L-carnitine chloride is a less potent inhibitor of GlyT2. Stearoyl-L-carnitine chloride inhibits glycine responses by 16.8% at concentrations up to 3 μM [1][2].
<b>In Vitro</b>	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]. Cristofano A, et al. Serum Levels of Acyl-Carnitines along the Continuum from Normal to Alzheimer's Dementia. *PLoS One.* 2016 May 19;11(5):e0155694.
- [3]. Carland JE, et al. Oleoyl-L-carnitine inhibits glycine transport by GlyT2. *Br J Pharmacol.* 2013 Feb;168(4):891-902.
- [4]. Huang W, et al. Carnitine transport and its inhibition by sulfonylureas in human kidney proximal tubular epithelial cells. *Biochem Pharmacol.* 1999 Oct 15;58(8):1361-70.

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

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