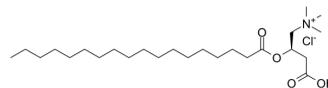


Stearoyl-L-carnitine chloride

Cat. No.:	HY-130466
CAS No.:	32350-57-5
Molecular Formula:	C ₂₅ H ₅₀ ClNO ₄
Molecular Weight:	464.12
Target:	Endogenous Metabolite; GlyT
Pathway:	Metabolic Enzyme/Protease; Membrane Transporter/Ion Channel; Neuronal Signaling
Storage:	-20°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



BIOLOGICAL ACTIVITY

Description	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]} .
IC₅₀ & Target	GlyT2
In Vitro	Stearoyl-L-carnitine (0.01-10 μM) inhibits glycine (30 μM) transport by 16.8% at concentrations up to 3 μM in <i>Xenopus laevis</i> oocytes ^[2] . Stearoyl-L-carnitine (500 μM; 30 min) inhibits Na ⁺ -dependent [³ H]carnitine (20 nM) uptake by ~50% in HPCT cells ^[3] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	Stearoyl-L-carnitine is significantly decreased in Alzheimer's disease (AD), mild cognitive impairment (MCI) and subjective memory complaint (SMC) ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- SSRN. 2023 Dec 20.

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REFERENCES

- [1]. 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.
- [2]. Carland JE, et, al. Oleoyl-L-carnitine inhibits glycine transport by GlyT2. Br J Pharmacol. 2013 Feb;168(4):891-902.
- [3]. 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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