

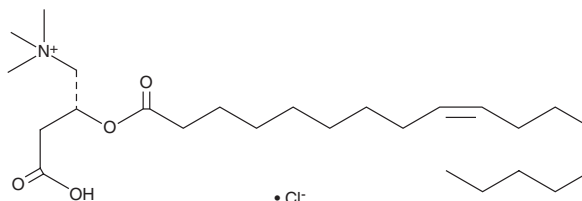
PRODUCT INFORMATION



Oleoyl-L-carnitine (chloride)

Item No. 39014

CAS Registry No.: 31062-78-9
Formal Name: (2R)-3-carboxy-N,N,N-trimethyl-2-[[[(9Z)-1-oxo-9-octadecen-1-yl]oxy]-1-propanaminium, monochloride
Synonyms: CAR 18:1, C18:1 Carnitine, L-Carnitine oleoyl ester, L-Octadecanoylcarnitine,
MF: C₂₅H₄₈NO₄ • Cl
FW: 462.1
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Oleoyl-L-carnitine (chloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the oleoyl-L-carnitine (chloride) in the solvent of choice, which should be purged with an inert gas. Oleoyl-L-carnitine (chloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of oleoyl-L-carnitine (chloride) in these solvents is approximately 30 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of oleoyl-L-carnitine (chloride) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of oleoyl-L-carnitine (chloride) in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Oleoyl-L-carnitine is a long-chain acylcarnitine and an inhibitor of glycine transporter 2 (GlyT2; IC₅₀ = 340 nM).^{1,2} It is selective for GlyT2 over GlyT1 (IC₅₀ = >10,000 nM). Plasma levels of oleoyl-L-carnitine are increased in patients with chronic kidney disease or end-stage renal disease receiving incident hemodialysis and these are associated with cardiovascular mortality.¹

References

1. Kalim, S., Clish, C.B., Wenger, J., *et al.* A plasma long-chain acylcarnitine predicts cardiovascular mortality in incident dialysis patients. *J. Am. Heart Assoc.* **2**(6), e000542 (2013).
2. Carland, J.E., Mansfield, R.E., Ryan, R.M., *et al.* Oleoyl-L-carnitine inhibits glycine transport by GlyT2. *Br. J. Pharmacol.* **168**(4), 891-902 (2013).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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