

PRODUCT INFORMATION



Oleoyl-L-carnitine-d₃ (chloride)

Item No. 26578

Formal Name: (R)-3-carboxy-N,N-dimethyl-N-(methyl-d₃)-2-(oleoyloxy)propan-1-aminium, monochloride

Synonyms: CAR 18:1-d₃, C18:1 Carnitine-d₃, L-Carnitine octadecanoyl ester-d₃, L-Carnitine oleoyl ester-d₃, Octadecanoyl-L-carnitine-d₃, L-Octadecanoylcarnitine-d₃, L-Oleoylcarnitine-d₃

MF: C₂₅H₄₅D₃NO₄ • Cl
FW: 465.1

Chemical Purity: ≥85% (Oleoyl-L-carnitine)

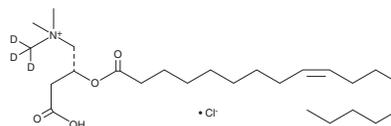
Deuterium

Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀

Supplied as: A solid

Storage: -20°C

Stability: ≥2 years



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

Laboratory Procedures

Oleoyl-L-carnitine-d₃ (chloride) is intended for use as an internal standard for the quantification of oleoyl-L-carnitine by (Item Nos. 26557 | 39014) GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Oleoyl-L-carnitine-d₃ (chloride) is supplied as a solid. A stock solution may be made by dissolving the oleoyl-L-carnitine-d₃ (chloride) in the solvent of choice. Oleoyl-L-carnitine-d₃ (chloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of oleoyl-L-carnitine-d₃ (chloride) in ethanol and DMF is approximately 20 mg/ml and approximately 14 mg/ml in DMSO.

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 08/15/2023

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM